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Monthly and Seasonal Mean Analyses

September, October, November 1987

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Monthly and Seasonal Mean Analyses

September, October, November 1987

Mean fields obtained from the archive of operational analyses

Met O 20 (Dynamical Climatology Branch)
Meteorological Office
London Road
Bracknell
Berkshire RG12 2SZ

February 1988

Note: Permission to quote from this document should be obtained from the Assistant Director of the above Meteorological Branch.

Monthly and Seasonal Mean Analyses

Introduction

The archive of operational analyses contains a continuous record of global analyses every 12 hours (00 and 12 GMT) from May 1983 onwards. They are copies of the update analyses produced in the operational numerical weather prediction system using the 15-level model (Bell and Dickinson 1987). In this booklet there are presented monthly and seasonal mean fields computed from the archived analyses for a single season. Since a season spans three calendar months, there are four sections. Sections 1, 2 and 3 contain charts of the monthly mean fields for each month, and section 4 contains charts of the seasonal mean fields. The seasonal means are the means of the fields in the first three sections, weighted according to the number of days in each month.

Each section contains a set of charts for the northern and southern hemispheres and a set for the tropics. In each hemisphere, polar stereographic projects have been used to prepare a chart of pressure at mean sea level and composite charts showing both height (contours) and wind (vectors and isotachs) at 850, 500, 250 and 100 mb. In the tropics the charts are presented on a latitude–longitude projection encircling the globe in three sections covering the longitudes 0°–120° E, 120° E–120° W and 120° W–0°. This projection has been used to produce a series of charts of wind vectors and isotachs at 850 and 250 mb. On all charts, contours are depicted as solid lines, wind vectors as arrows and isotachs as dashed lines.

When archiving was first undertaken, for May 1983, global fields were stored according to their coefficients in a series of spherical harmonics up to a triangular truncation of T40 (Swinbank 1984). Since this is roughly equivalent to a latitude–longitude grid with a resolution of 4.5° by 4.5°, the conversion from the model's standard grid of 1.5° by 1.875° to the spectral representation results in some smoothing of the fields. Subsequently, a new method for storing the archived fields was developed as a result of discussions within the Working Group on the Development of the Operational Suite (WGDOS). This method uses a compressed digital coding of the original model field, on its standard latitude–longitude grid, but with fewer significant figures (Lowther 1986). It was implemented on 18 December 1985 in a limited version. After the inclusion of more fields, and following monitoring to ensure that the two representations (i.e. truncated spectral and compressed grid-point) of the archived analyses were consistent, the spectral archive was terminated on 31 October 1986.

The contents of the archives may be examined by consulting the computer data set 'M20.NARCHIND', where the tape number, file number and data set name for each archived day may be found. The fields in the spectral archive are stored in the format required by the post-processing (p-p) package. Details of the format and of the subroutines to be used for accessing the data are described in the manual for the p-p package. Some examples are shown in Swinbank (1984). The fields in the daily grid-point archive are stored as printfiles (Lowther 1986). A list of the fields in each of the two versions of the daily archive is given in the relevant documentation.

The monthly and seasonal mean fields have been computed from the spectral archive up to the end of October 1986. Thereafter, they have been computed from the grid-point archive. The mean fields are held as computer data sets in Met O 20, in spectral or grid-point format, as appropriate, and are available for general use. Means for each month and season over three years of the spectral archive are also available. The mean fields that are held are as follows:

Field		Pressure level (mb)
Westerly wind component	(m/s)	
Southerly wind component	(m/s)	1000*, 850, 700, 500, 400, 300,
Height	(dam)	250, 200, 150, 100, 70, 50
Temperature	(K)	
Relative humidity	(%)	1000*, 850, 700, 500, 400, 300
Pressure at mean sea level	(mb)	

* Fields at 1000 mb are held in the spectral archive. In the grid-point archive this level has been omitted and fields at 950 mb are held instead.

References

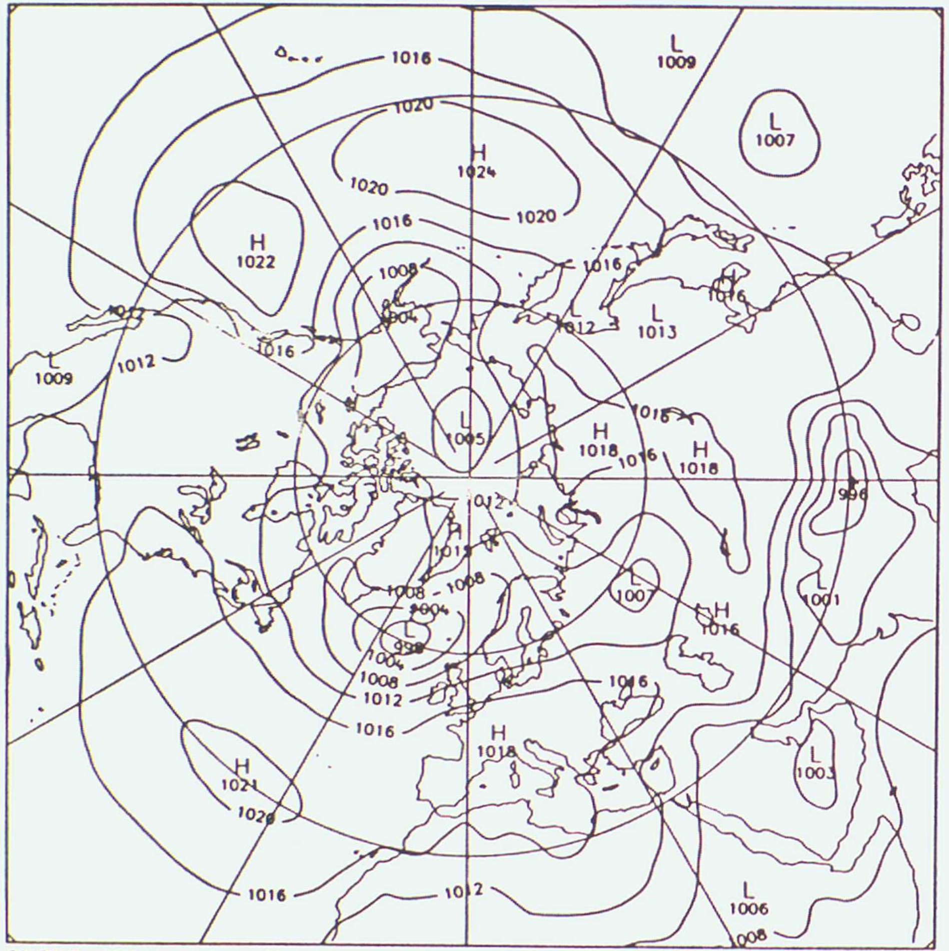
Bell, R.S. and Dickinson, A. 1987 The Meteorological Office operational numerical weather prediction system, Meteorological Office Scientific Paper No. 41, Met.O.979, HMSO.

Lowther, D. 1986 WGDOS Printfile Archive, Operational NWP Scheme, Documentation Paper No. 9.1, Met O 2b, Meteorological Office, Bracknell.

Swinbank, R. 1984 A system to archive operational analyses for research purposes. Met O 20 Technical Note No. II/218. Meteorological Office, Bracknell.

SEPTEMBER
1987

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
PMSL
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
SEA LEVEL



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H 1022
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L 1013
L 1012
H 1018
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L 1005
L 996
L 1001
L 1007
H 1016
L 998
H 1018
H 1021
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1012
1008
1004
1008
1012
1016
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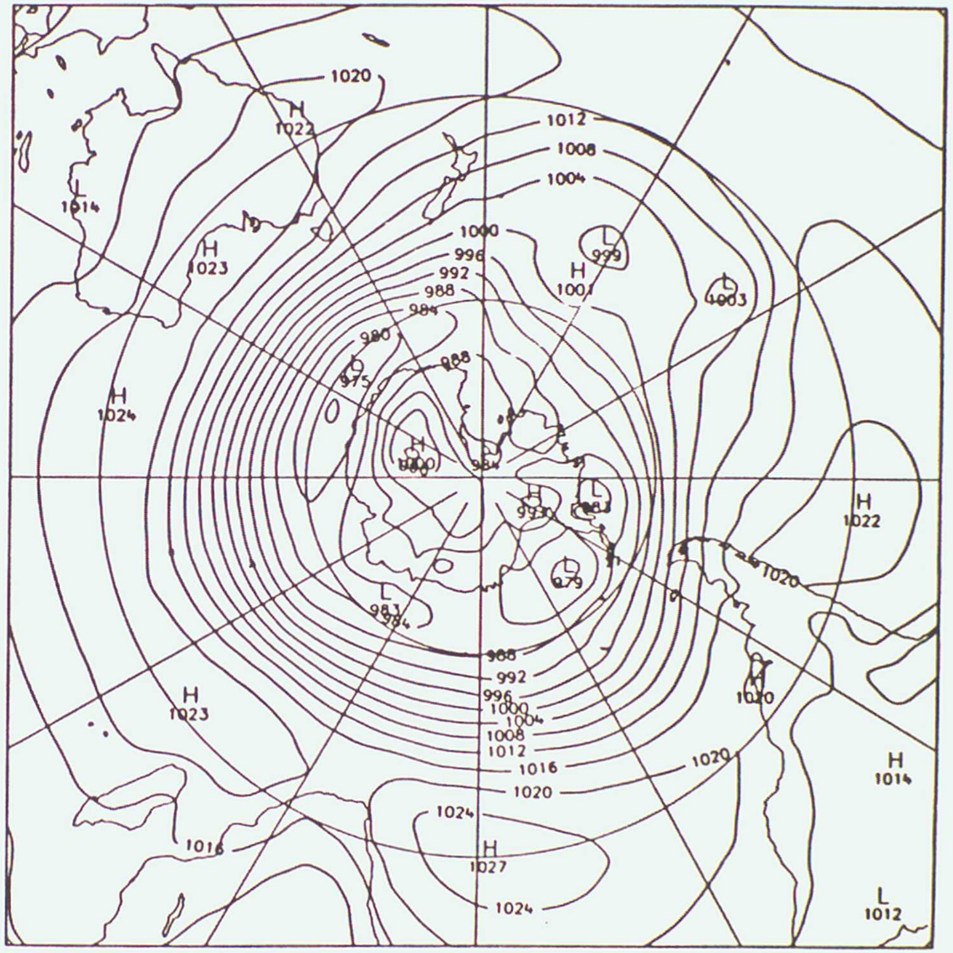
1016
1012
1008

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
PMSL
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
SEA LEVEL



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L 999
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L 983
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H 1022
H 1023
H 1020
H 1014
H 1027
L 1012
1012
1008
1004
1000
996
992
988
984
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988
992
996
1000
1004
1008
1012
1016
1020
1024
1024
1016
1020

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
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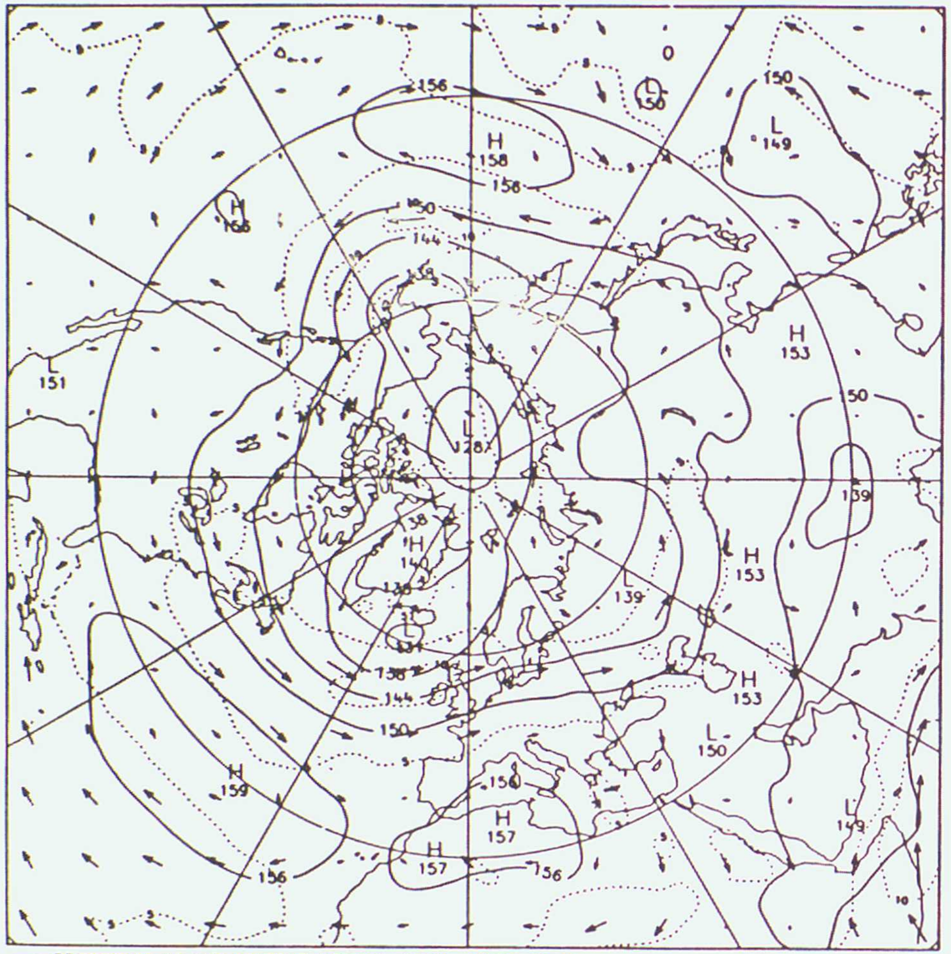
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H
153
L
150
H
159
H
157
H
157
156
L
149

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
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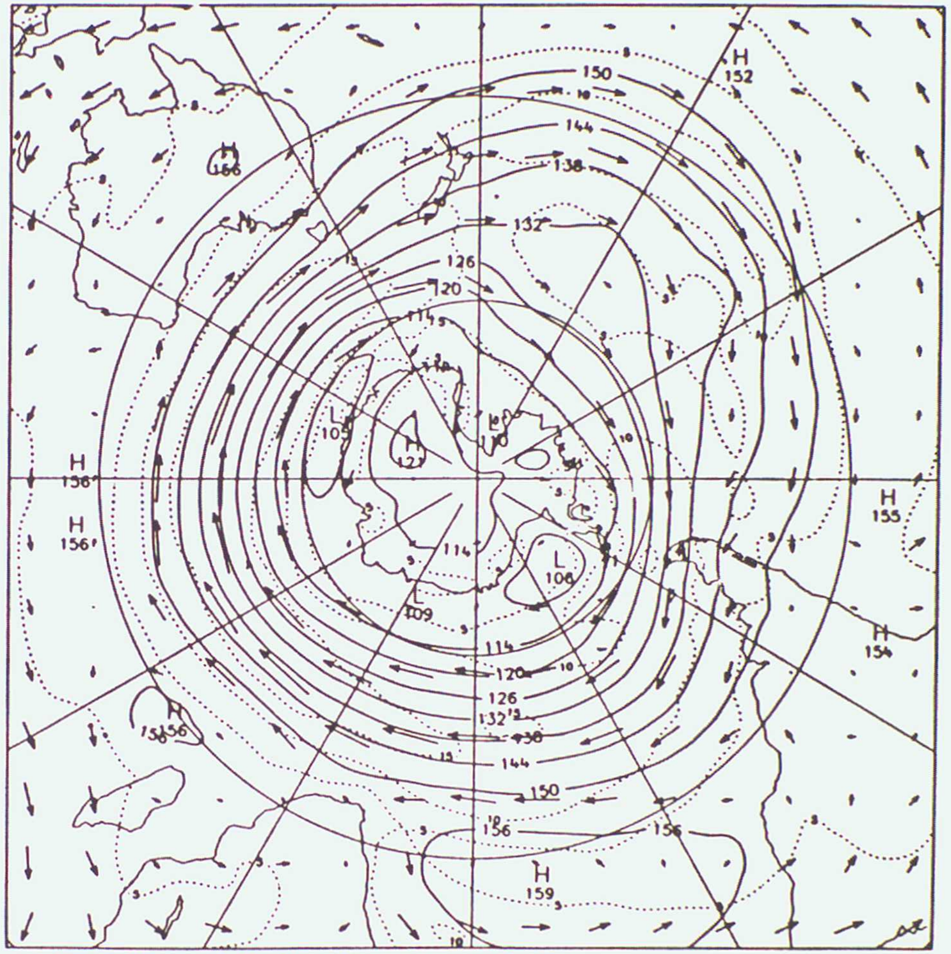
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110
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H
156
H
155
L
106
L
109
H
154
120
126
132
138
144
150
156
156
H
159

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
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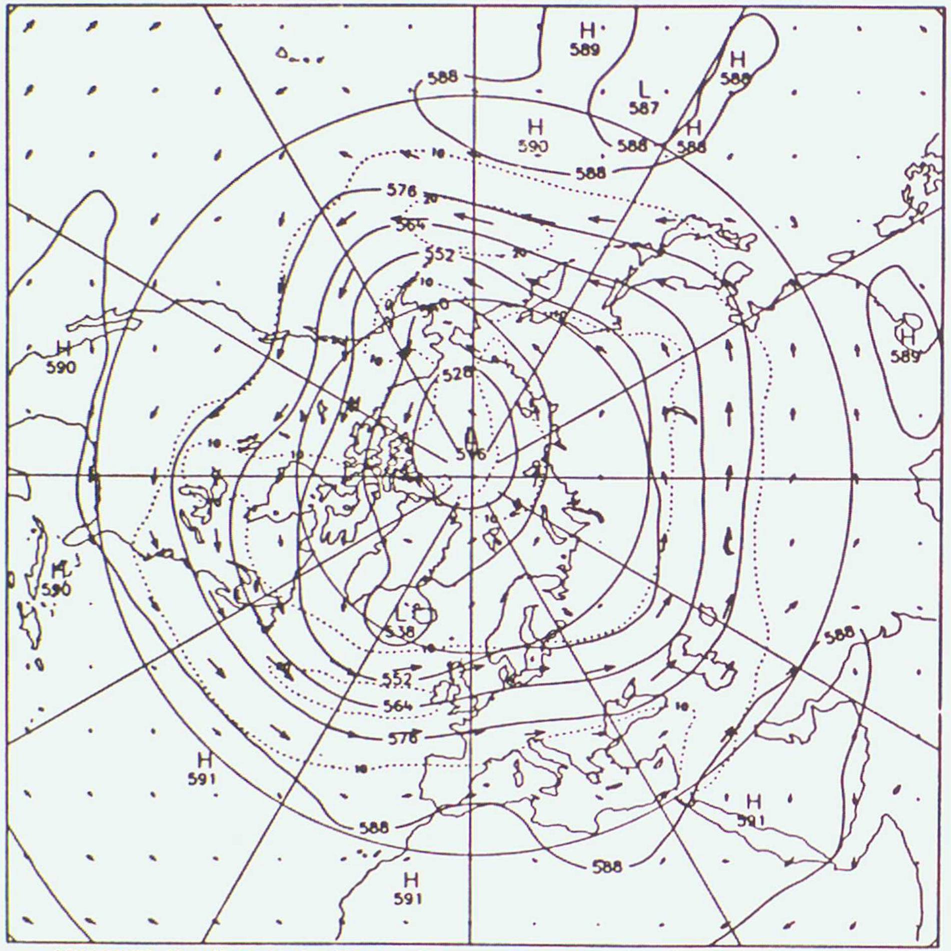
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546
H
590
L
538
552
564
576
H
591
588
H
591
588
588
H
591
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
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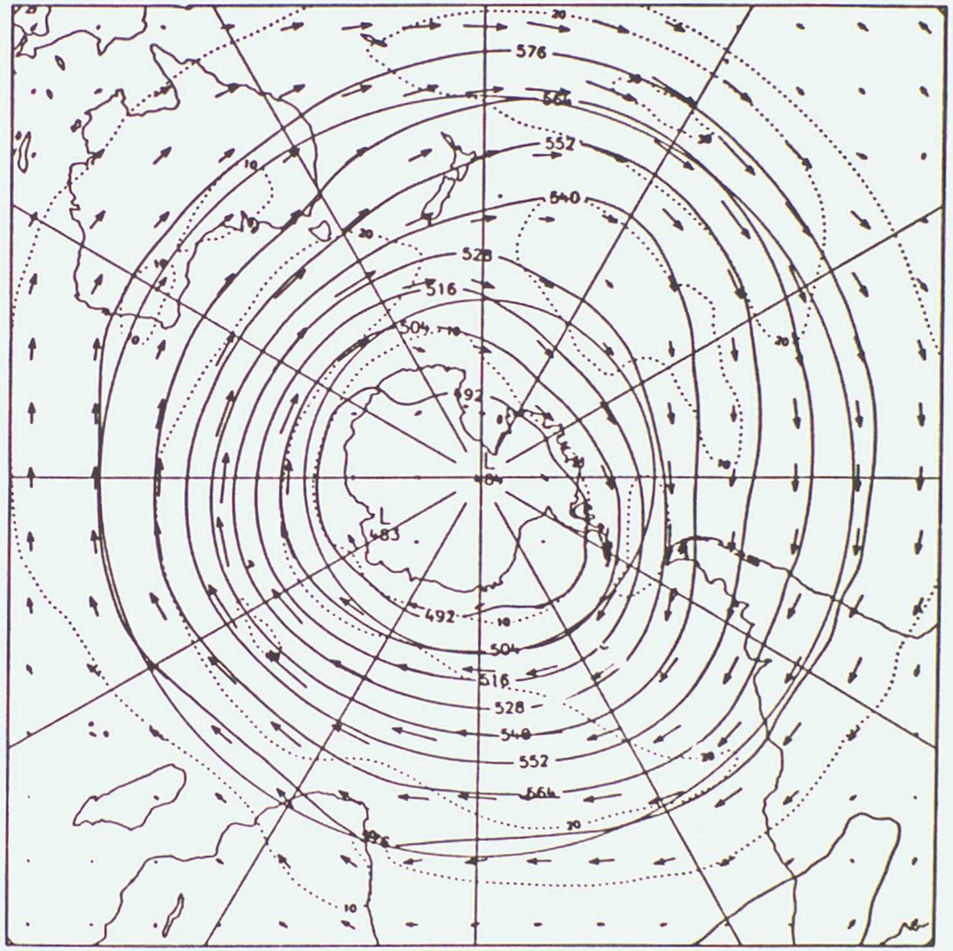
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552
564
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10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
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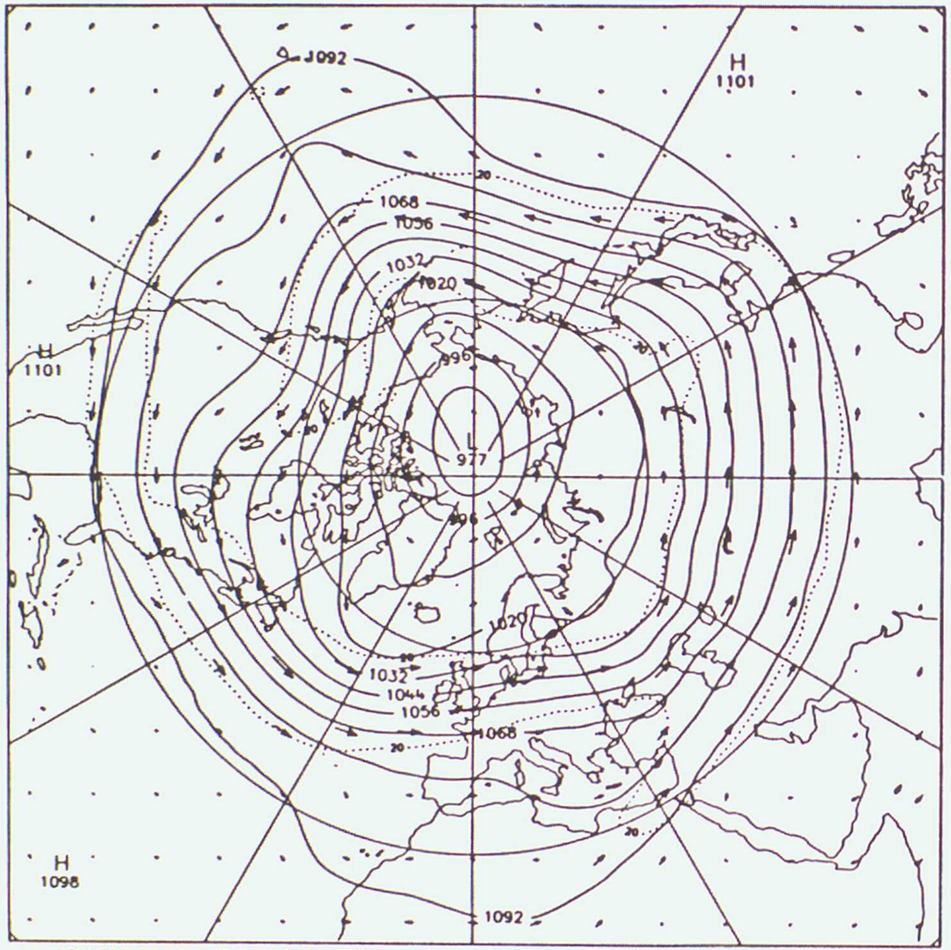
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1020
20
1032
1044
1056
1068
20
20
H
1101
H
1098
1092

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
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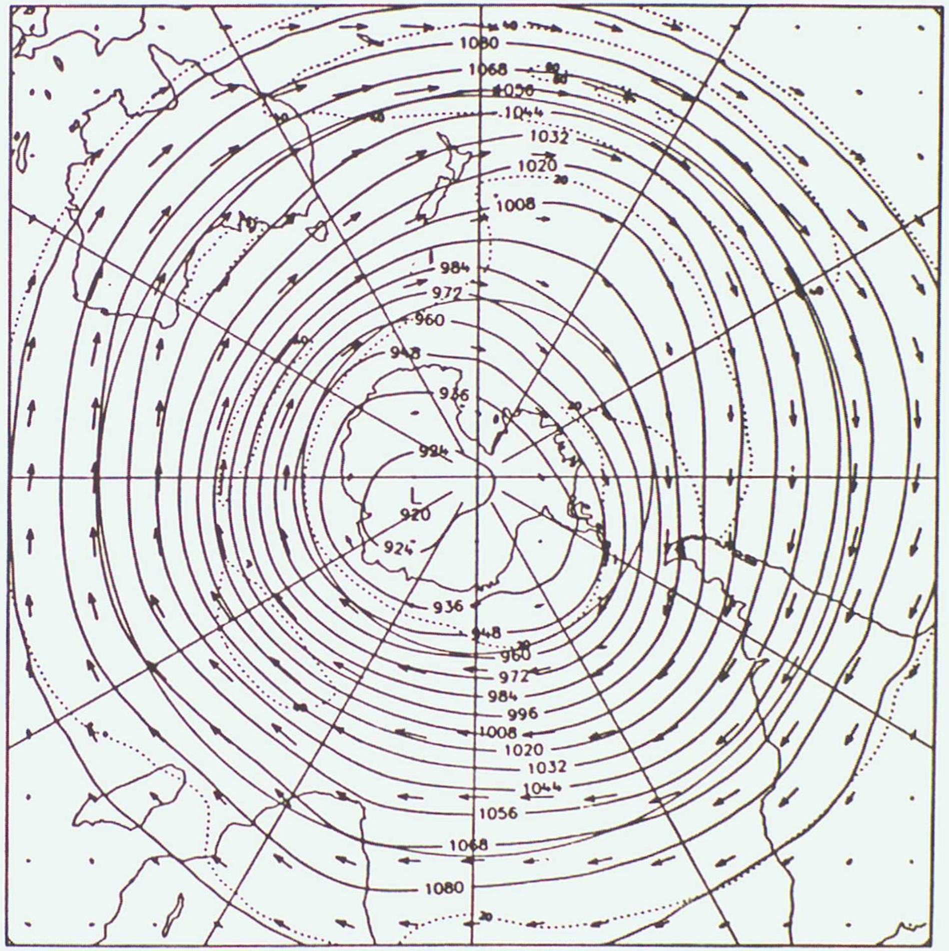
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20
924
L
920
924
936
948
960
972
984
996
1008
1020
1032
1044
1056
1068
1080
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
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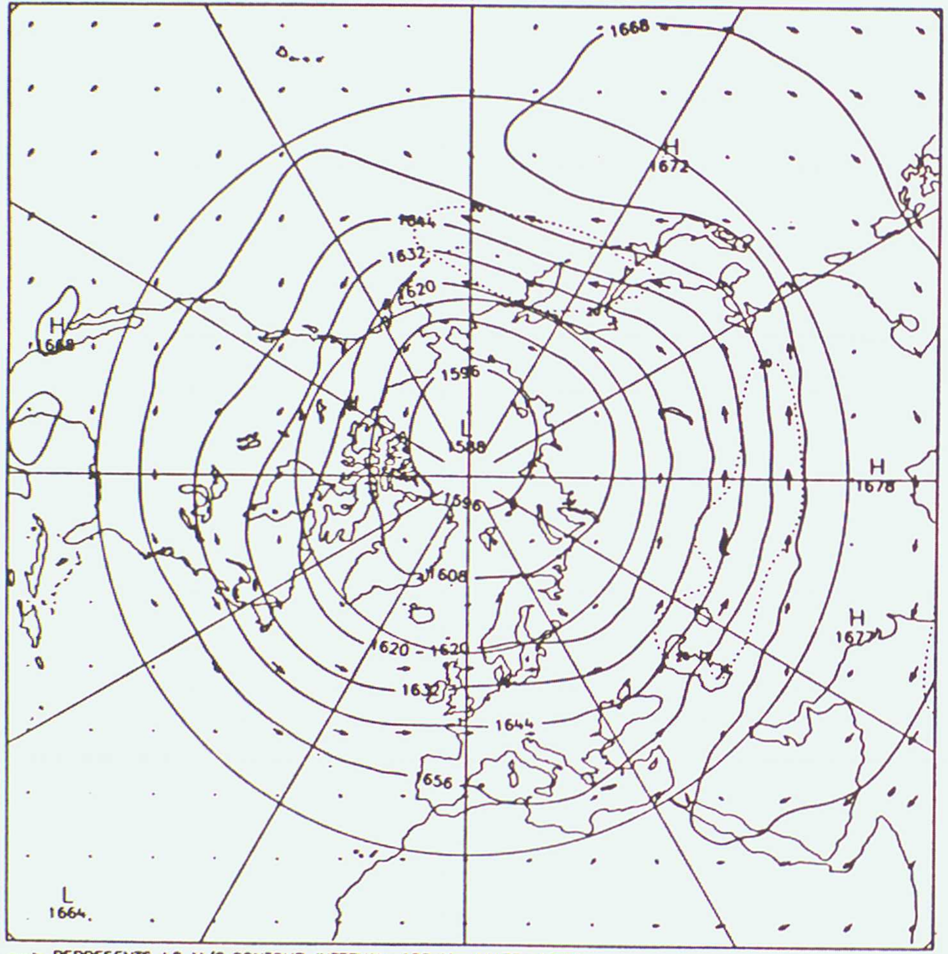
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H
1677
1620
1620
1632
1644
1656
L
1664

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
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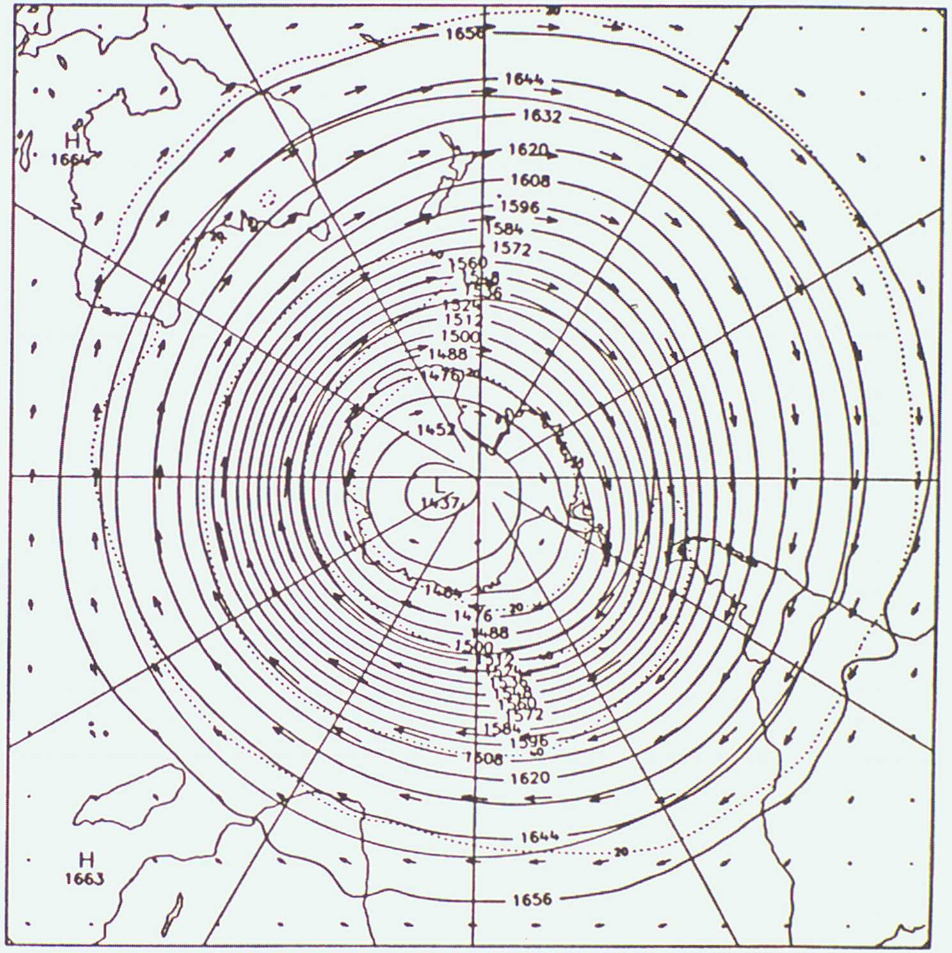
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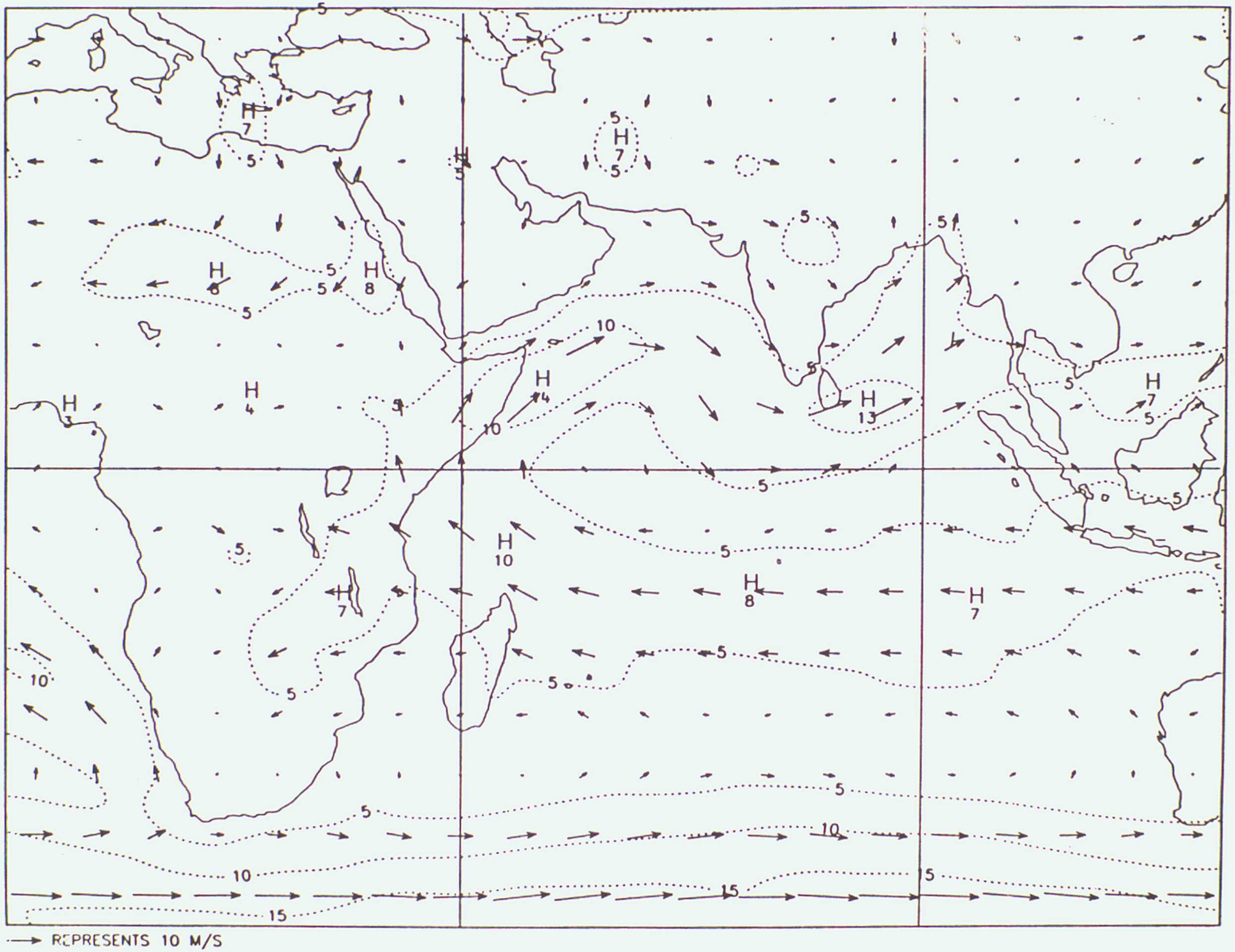
1464
1476
1488
1500
1572
1584
1596
1608
1620
H
1663
1644
20
1656

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
850 MBS. BETWEEN LONGS. 0 E - 120 E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H 8
H 4
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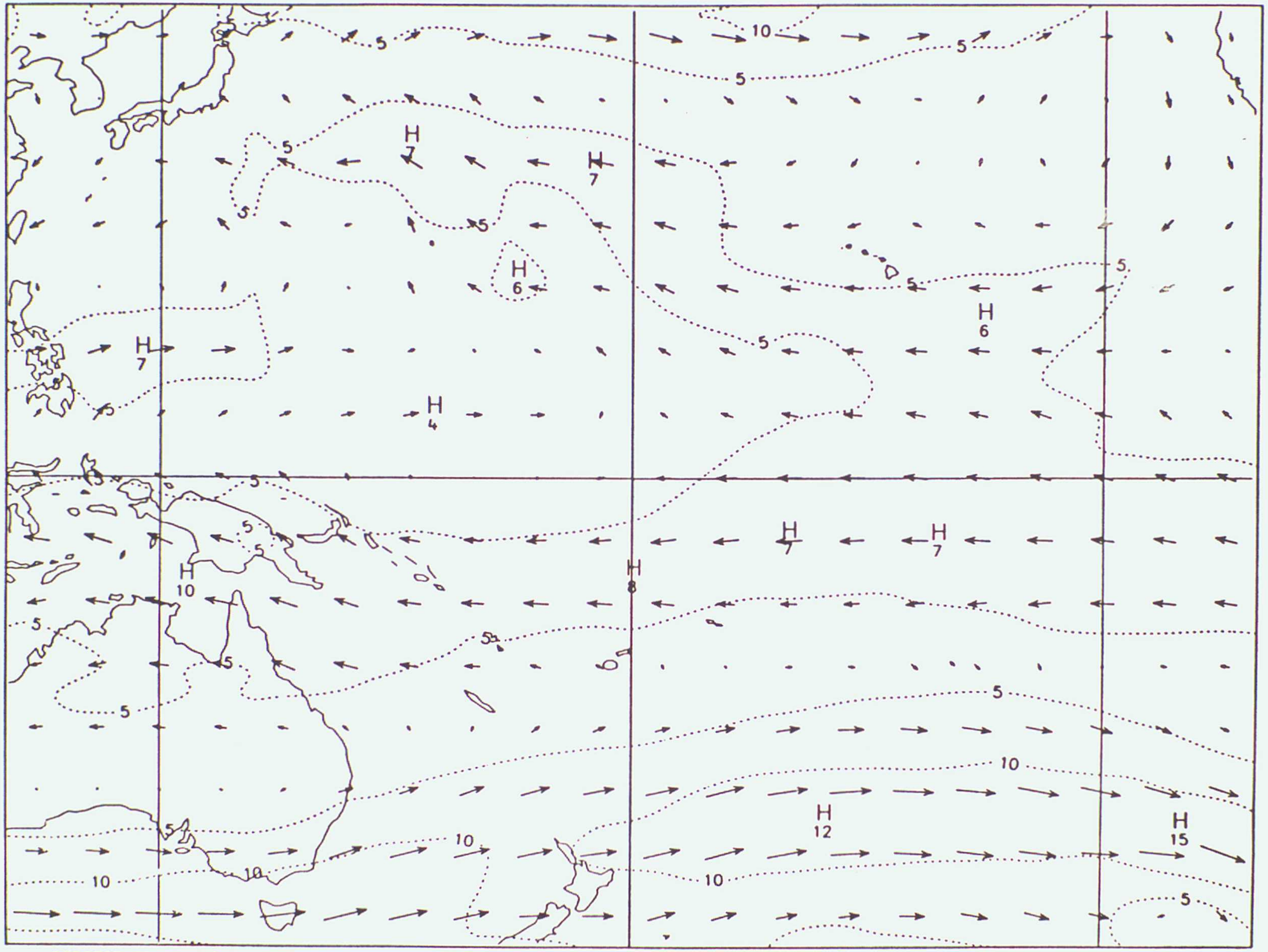
H 4
H 13
H 7
H 10
H 8
H 7
H 7
5
10
15

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
850 MBS. BETWEEN LONGS. 120 E - 120 W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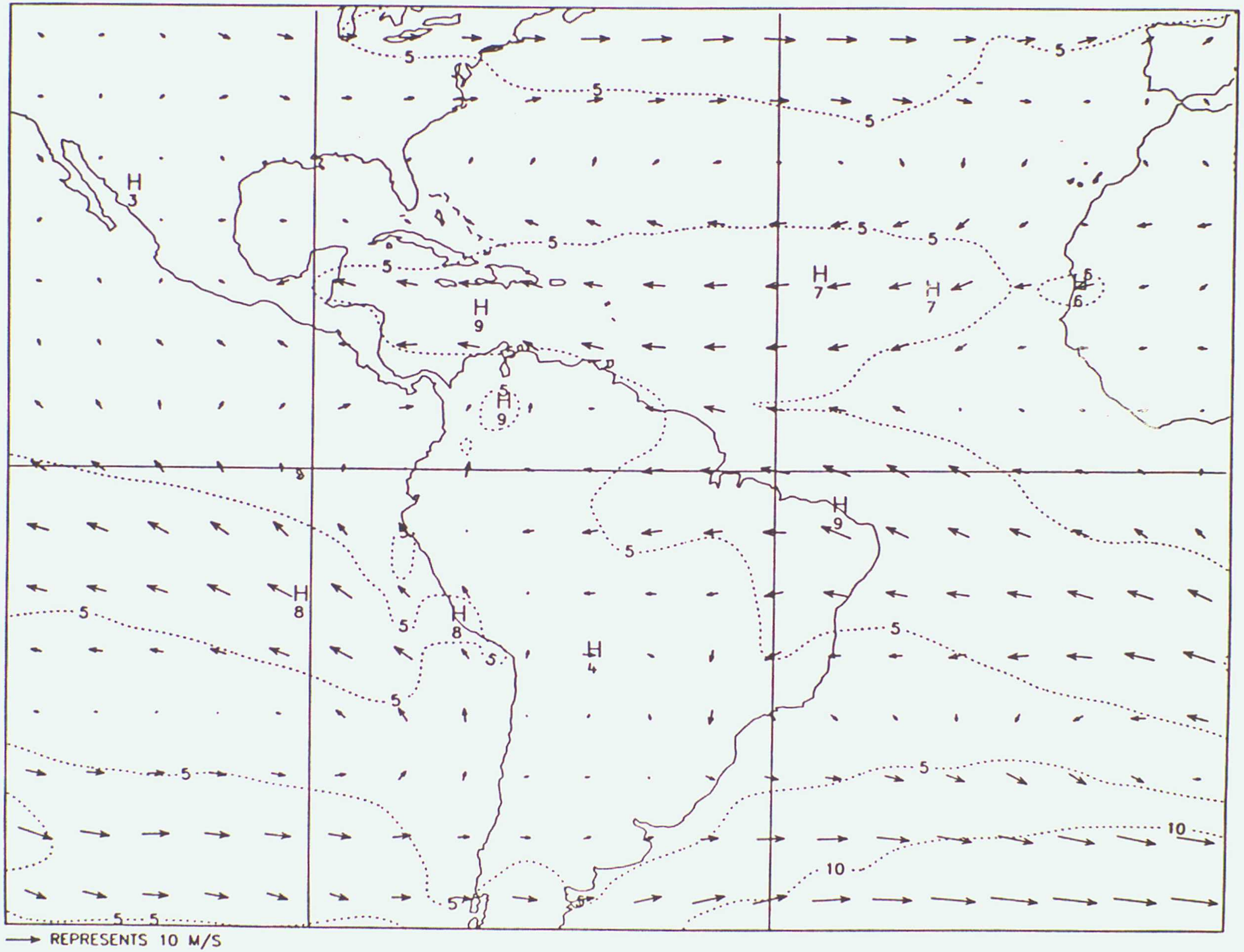
H 12
H 15
5
10

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEPTEMBER   1987
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
VALID AT   0Z ON 1/9/1987 DAY 244   DATA TIME 12Z ON 30/9/1987 DAY 273
850 MBS.   BETWEEN LONGS. 120 W - 0 W



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H 4
5
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEPTEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
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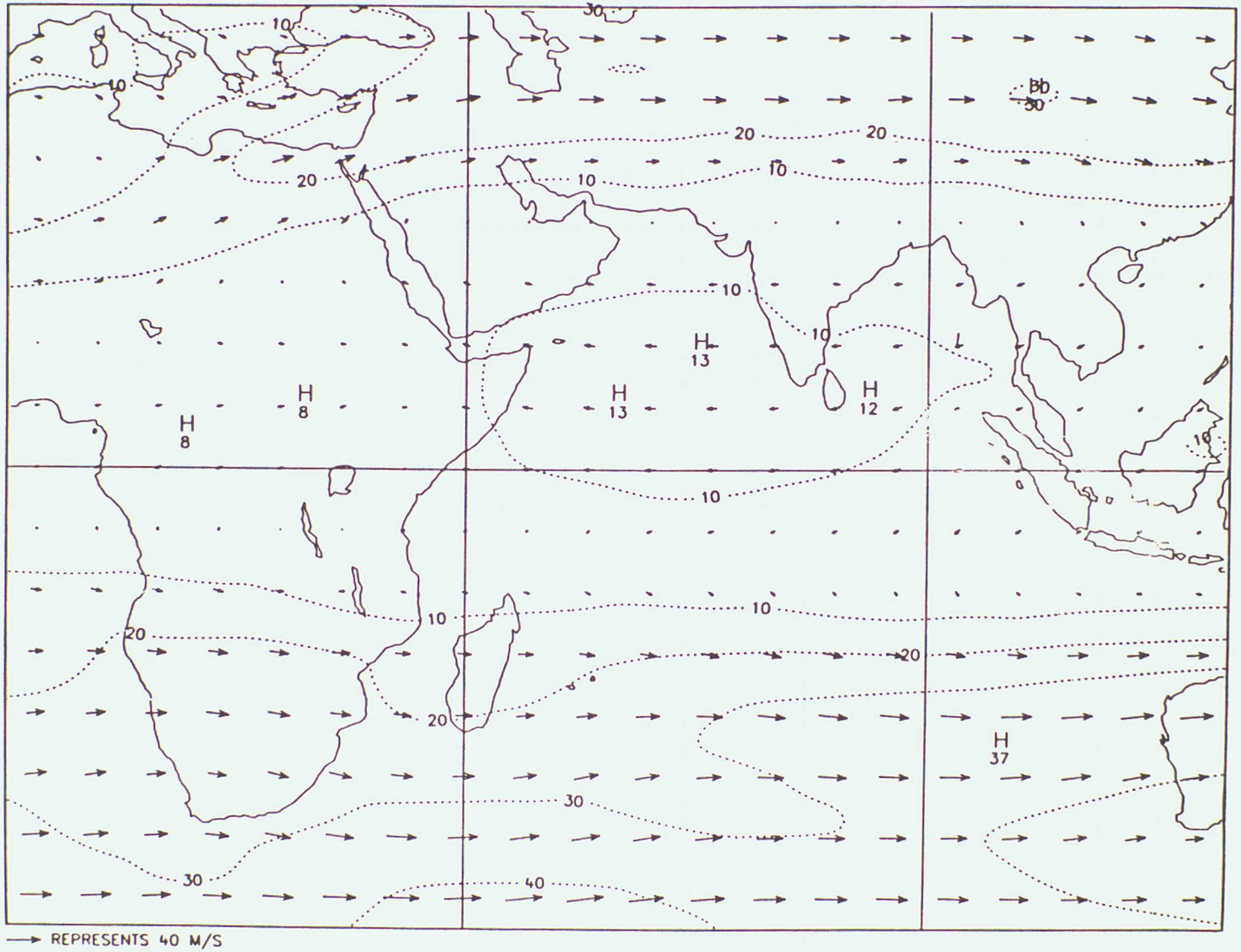
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10
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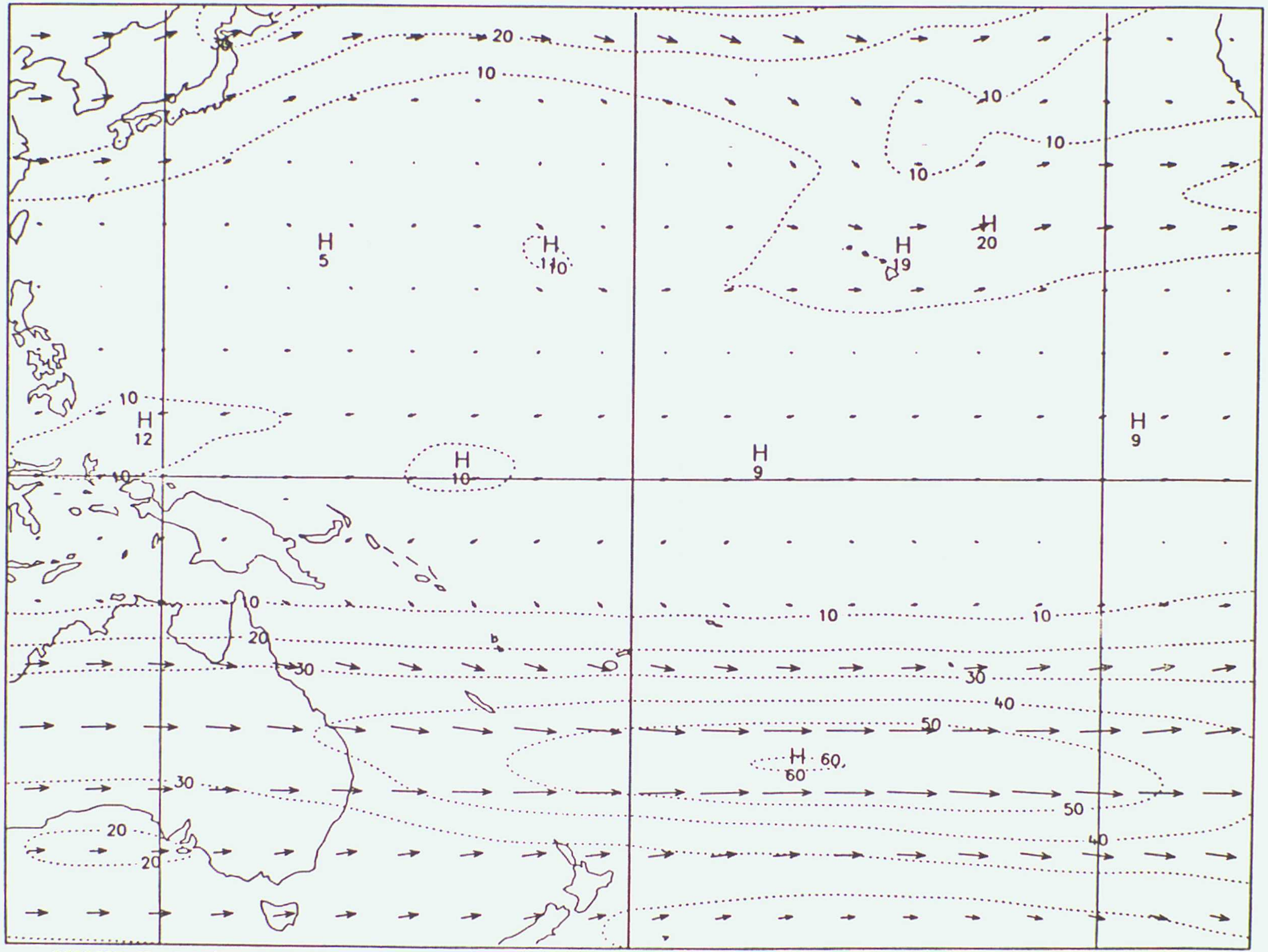
20
20
H 37
30
30
40
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
250 MBS. BETWEEN LONGS. 120 E - 120 W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10
10
10
20
30
30
40
50
H 60
60
50
40
30
20
20

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/9/1987 DAY 273
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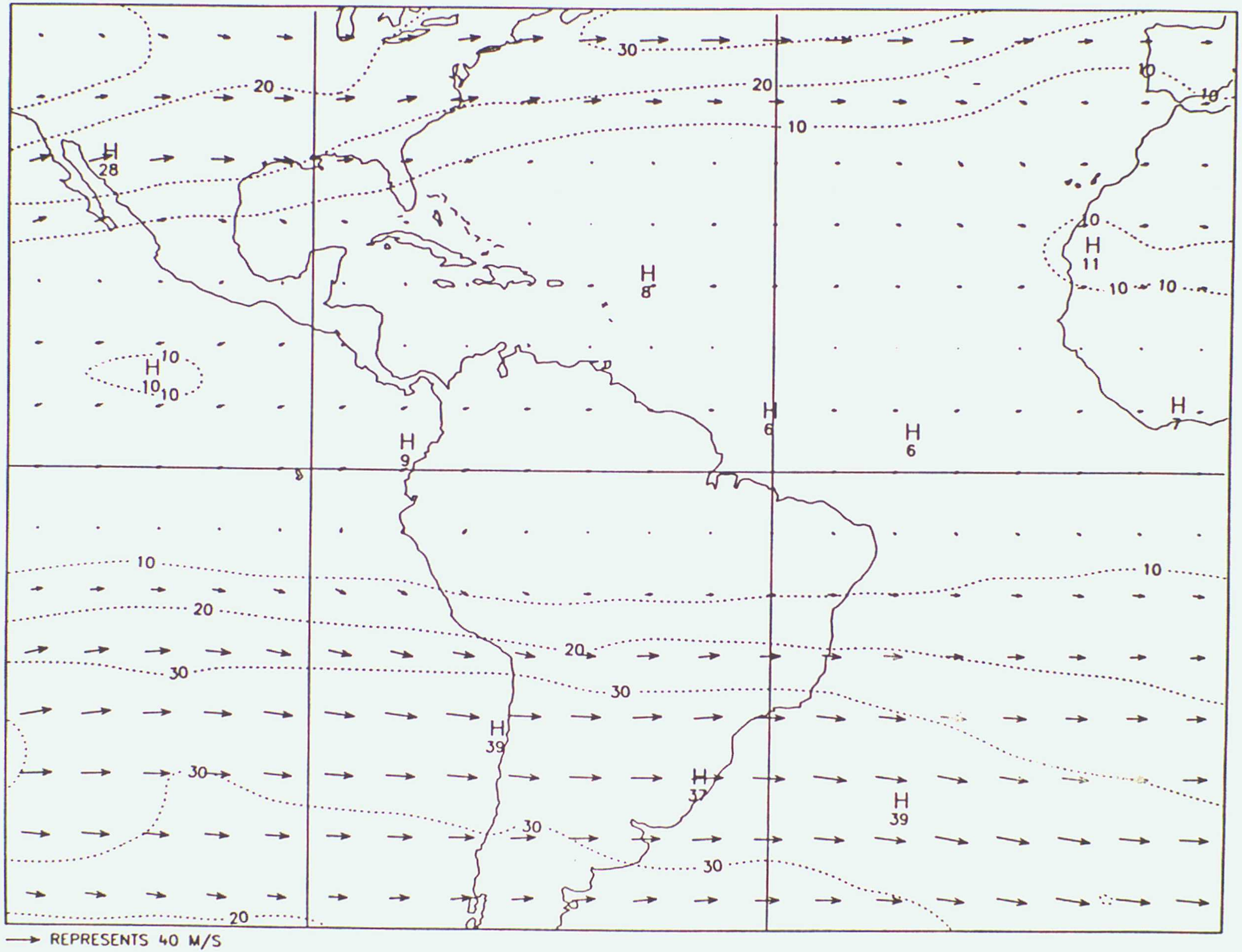
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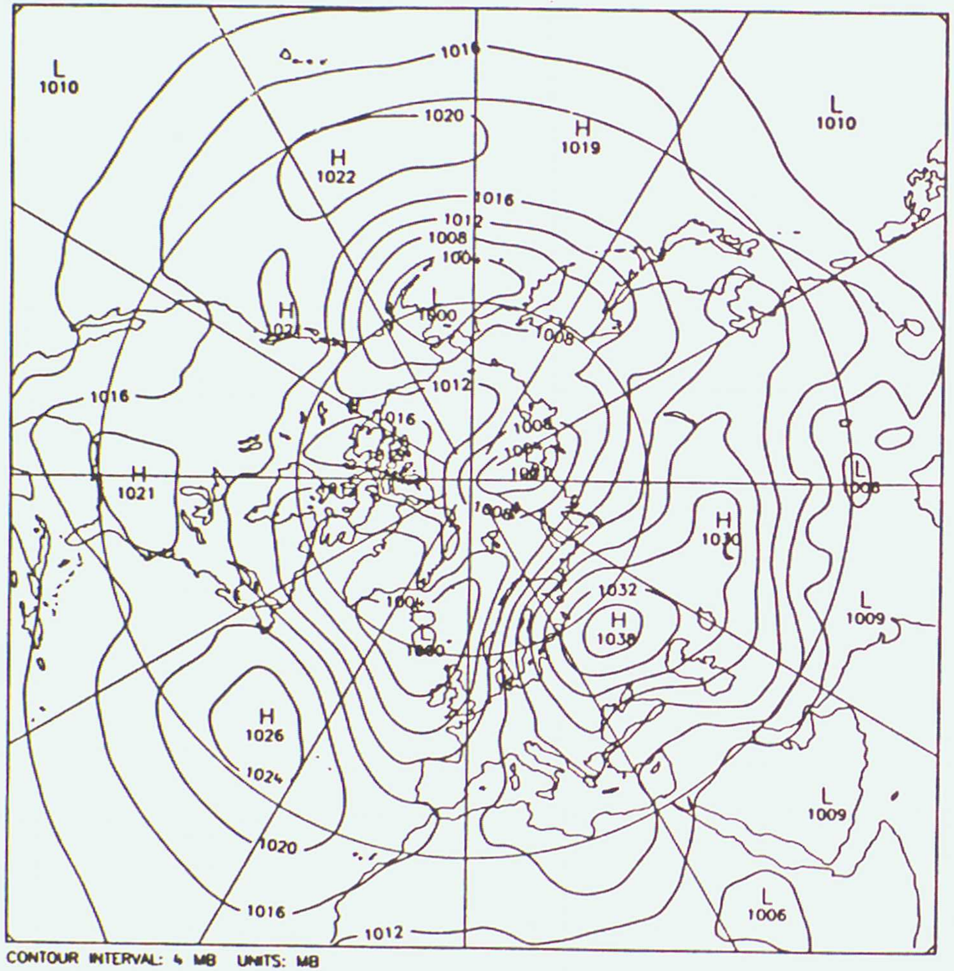
H
9
10
20
30
20
30
H
39
30
H
37
H
39
30
30
20
→ REPRESENTS 40 M/S

OCTOBER
1987

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
PMSL
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
SEA LEVEL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1016
H
1021
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1030
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1008
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1016
L
1006
1012

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
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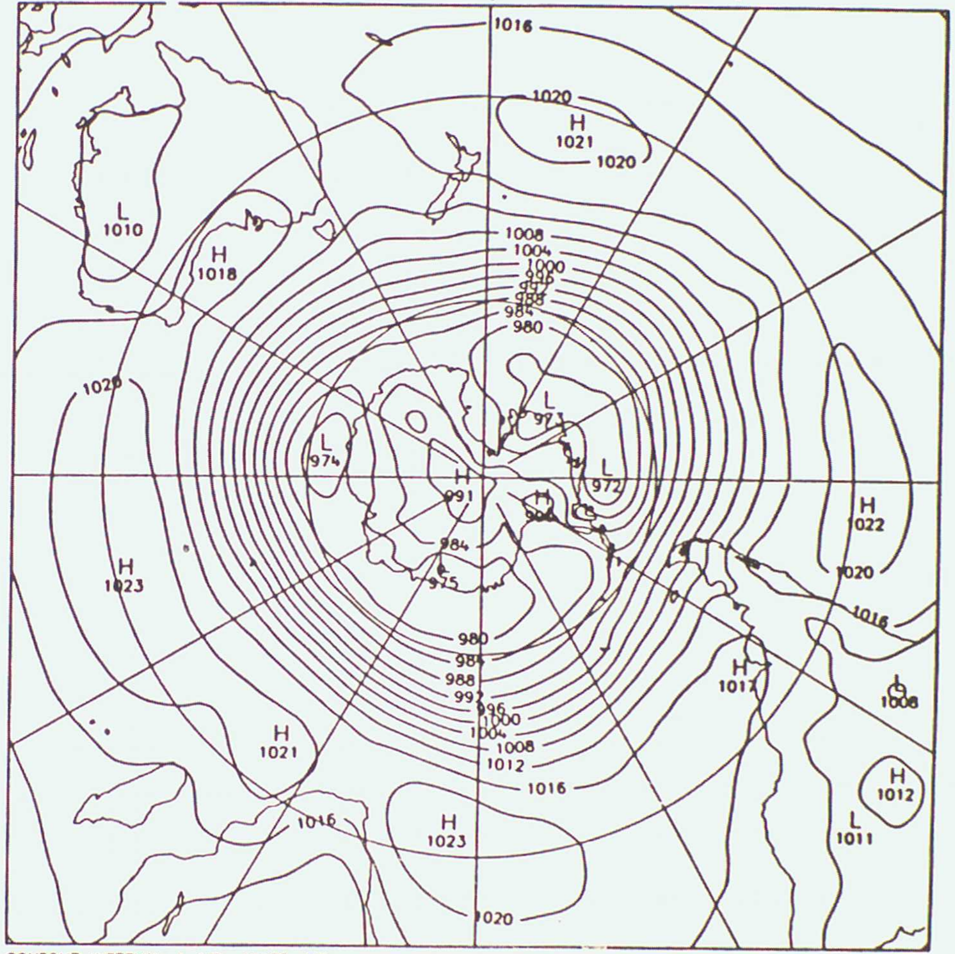
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
SEA LEVEL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H
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975
H
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980
984
988
992
996
1000
1004
1008
1012
1016
H
1017
L
1008
H
1021
H
1012
L
1011
1016
H
1023
1020

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
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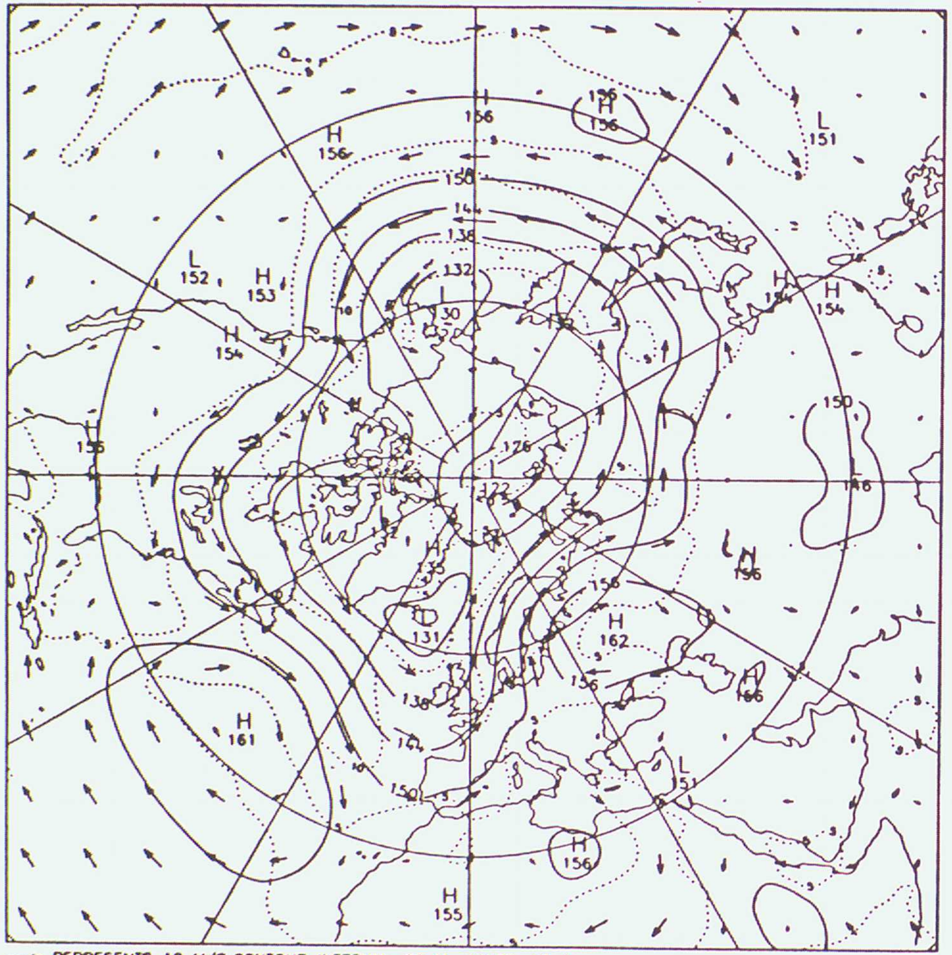
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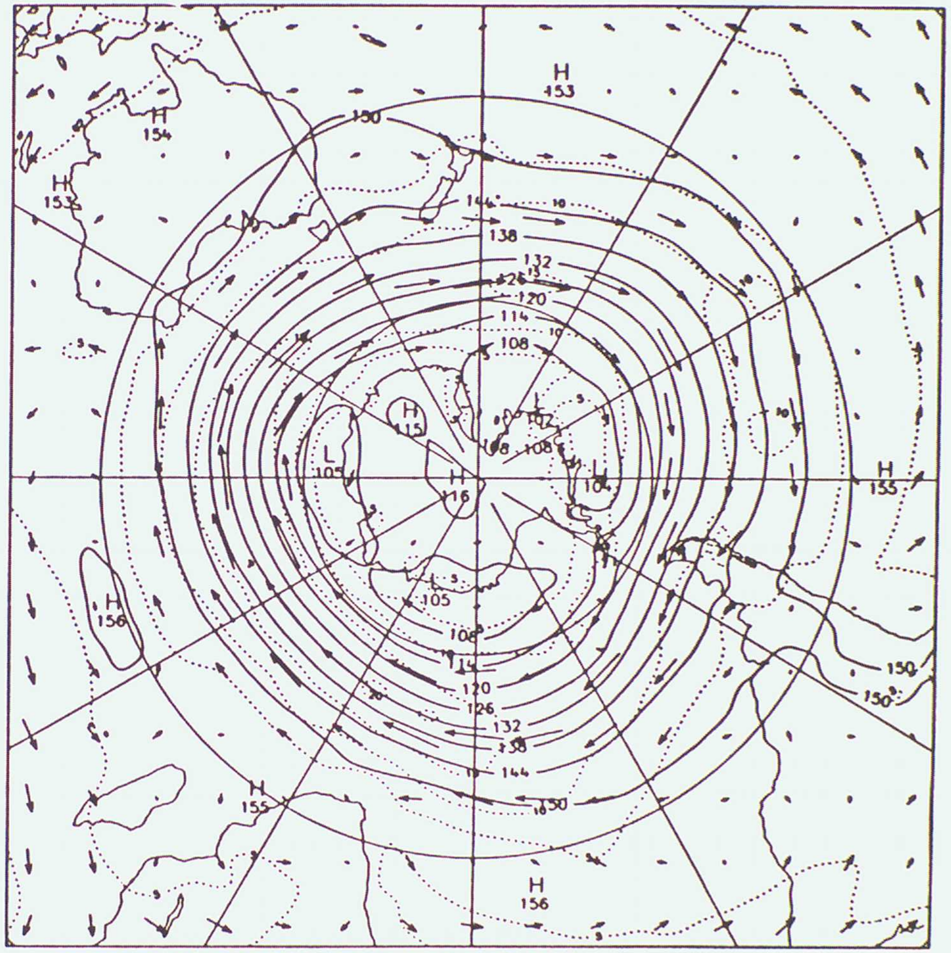
122
L 131
H 136
156
H 162
156
H 156
H 161
138
144
150
L 151
H 156
H 155

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
LEVEL: 850 MB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H 156
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132
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H 155
H 156

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
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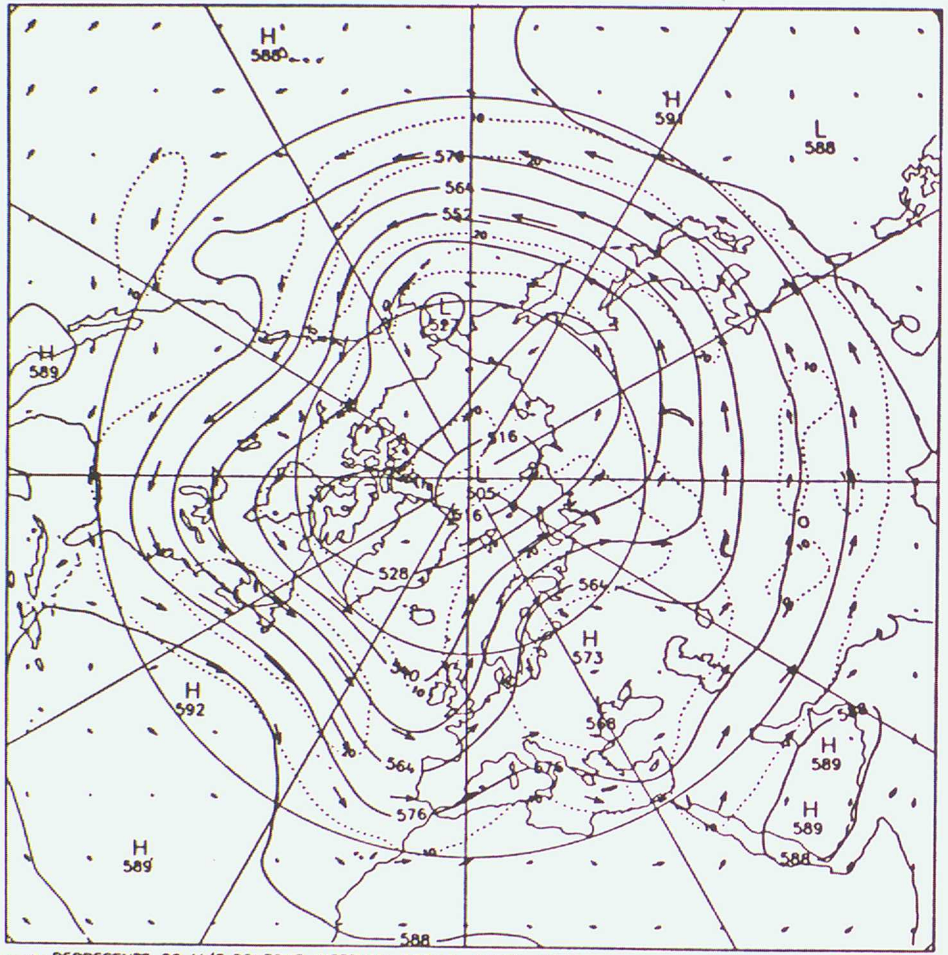
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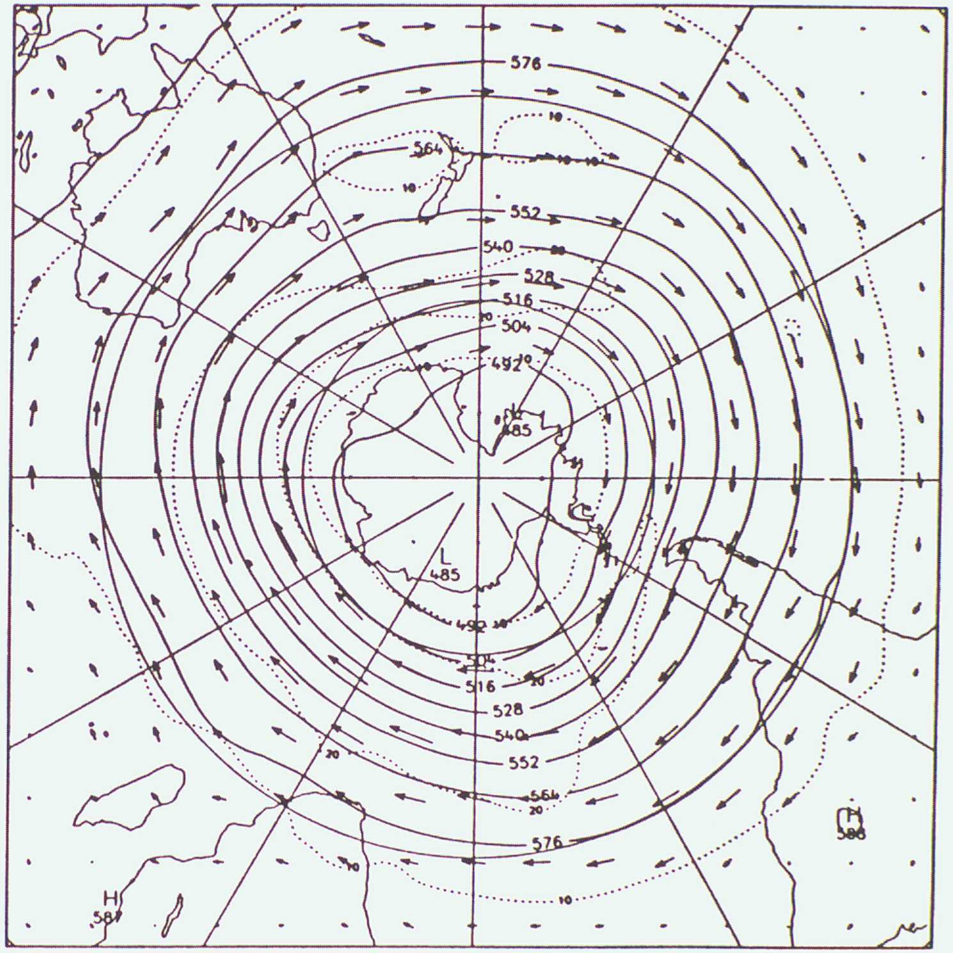
564
H
573
568
H
592
564
576
H
589
H
589
H
589
588
588
588

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
LEVEL: 500 MB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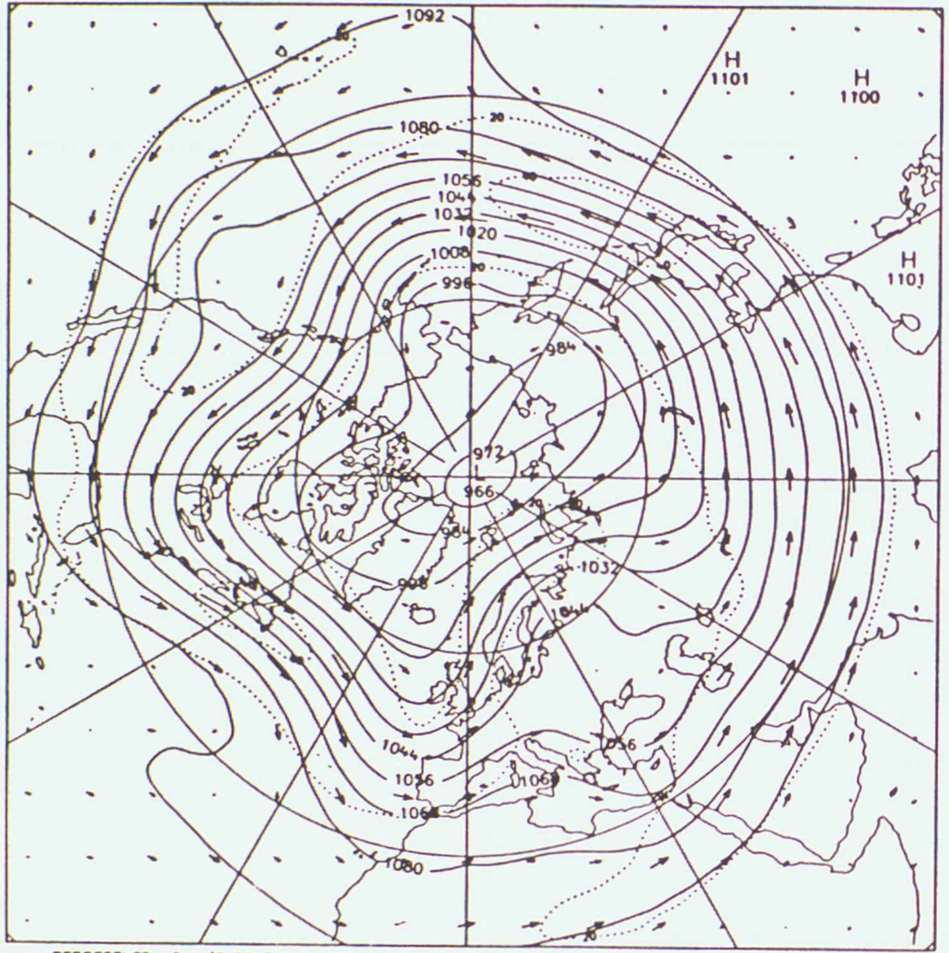
10
20
H
588
H
587

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT   0Z ON 1/10/1987 DAY 274   DATA TIME 12Z ON 31/10/1987 DAY 304
LEVEL: 250 MB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L
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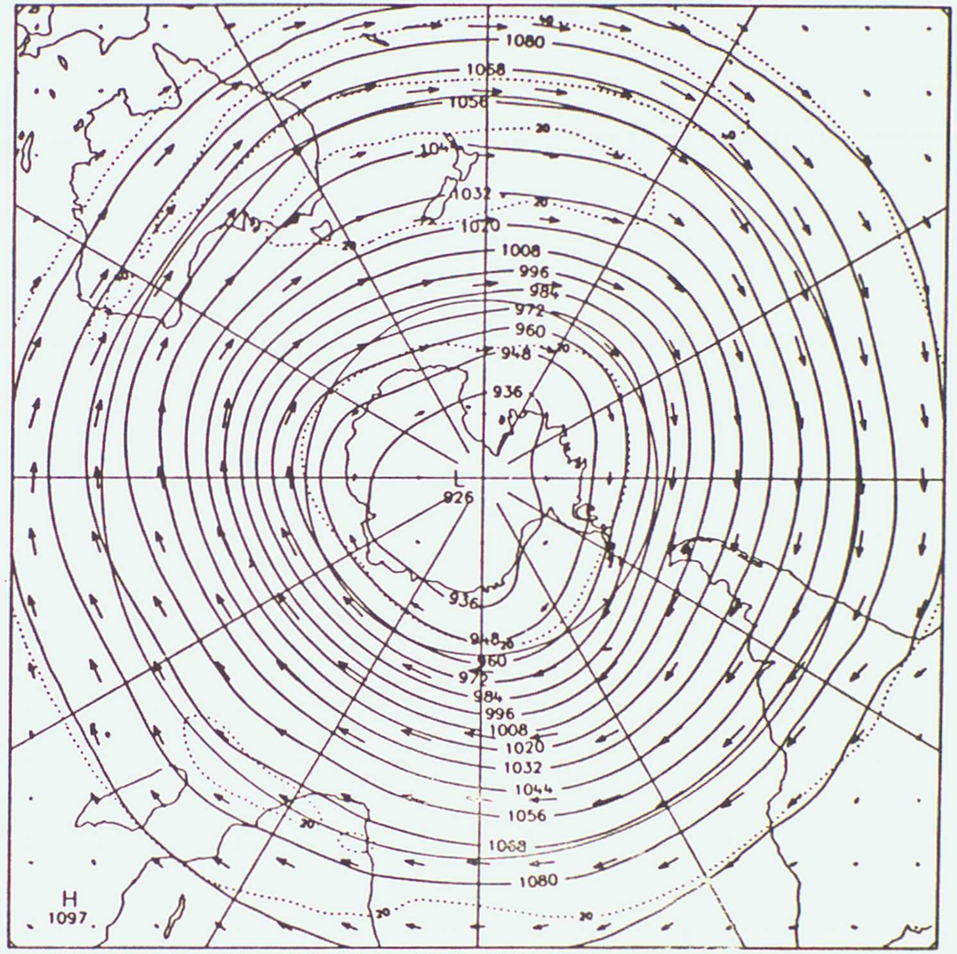
984
1032
1044
1056
1044
1056
1068
1068
1080
20

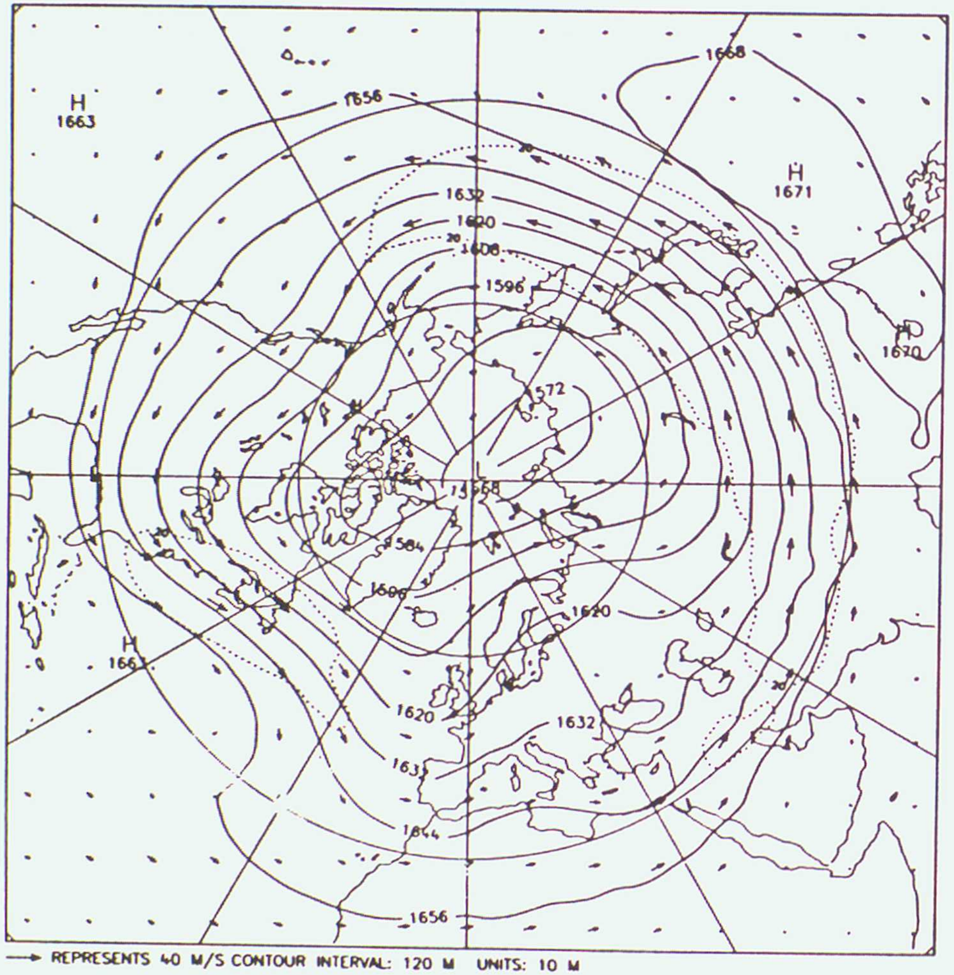
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT   0Z ON 1/10/1987 DAY 274   DATA TIME 12Z ON 31/10/1987 DAY 304
LEVEL: 250 MB


1080
1068
1056
1044
1032
1020
1008
996
984
972
960
948
936
L
926
936
948
960
972
984
996
1008
1020
1032
1044
1056
1068
1080
20
H
1097

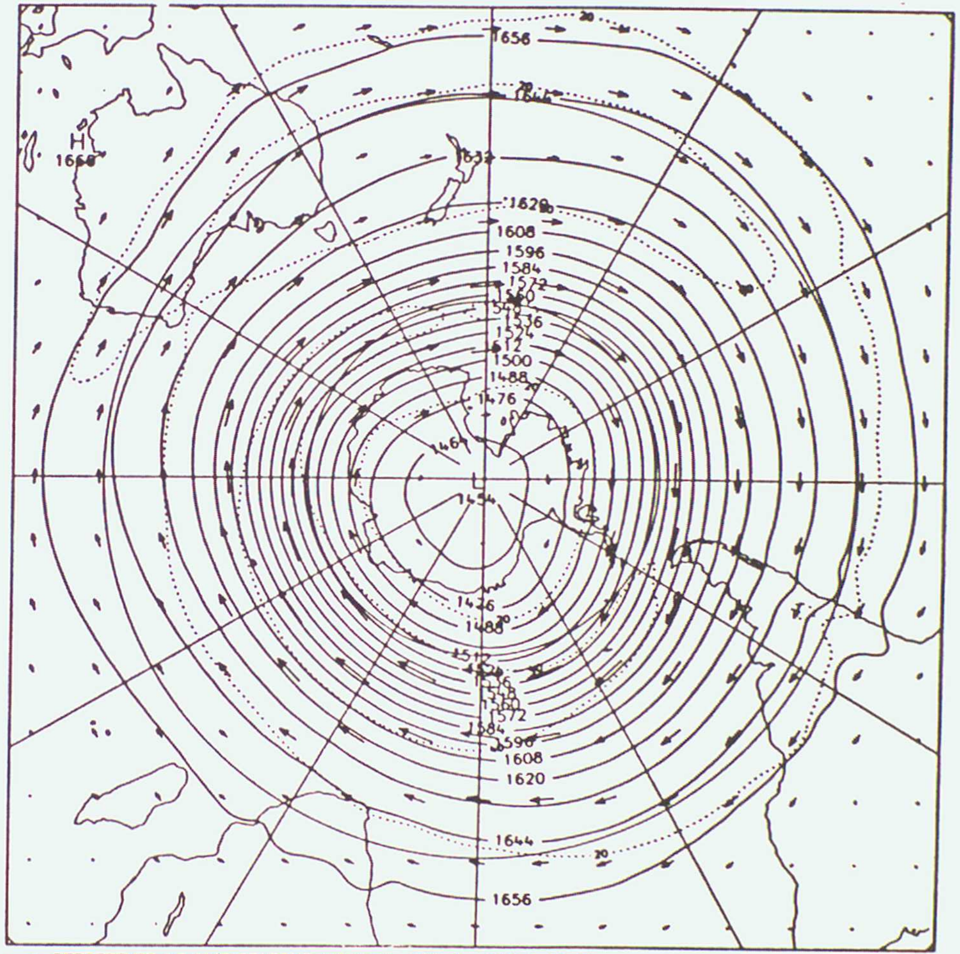
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
LEVEL: 100 MB


H
1663
1656
1668
H
1671
1632
1620
1608
1596
1572
1568
1584
1596
1620
H
1670
H
166
1620
1632
1632
1644
1656
20

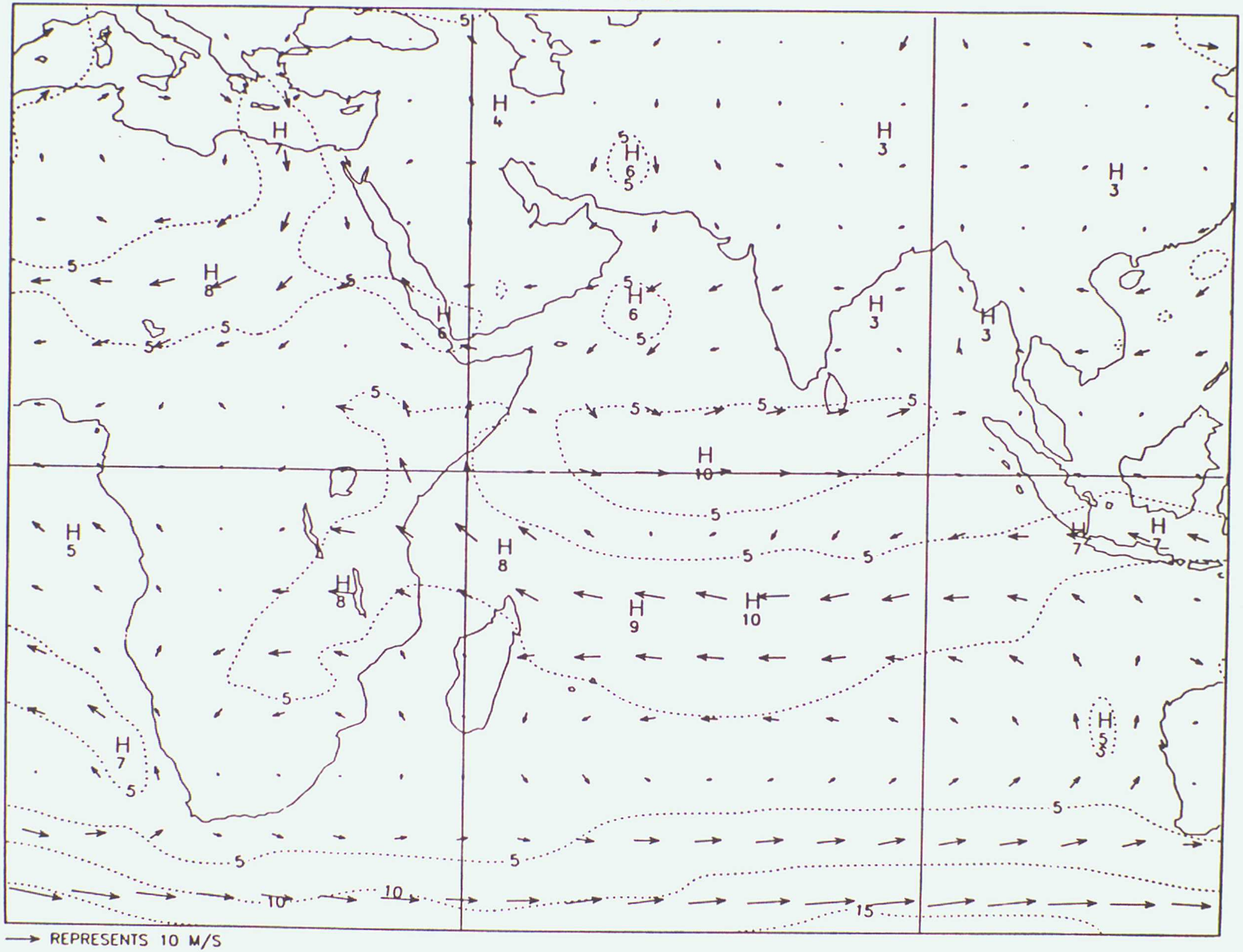
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
LEVEL: 100 MB

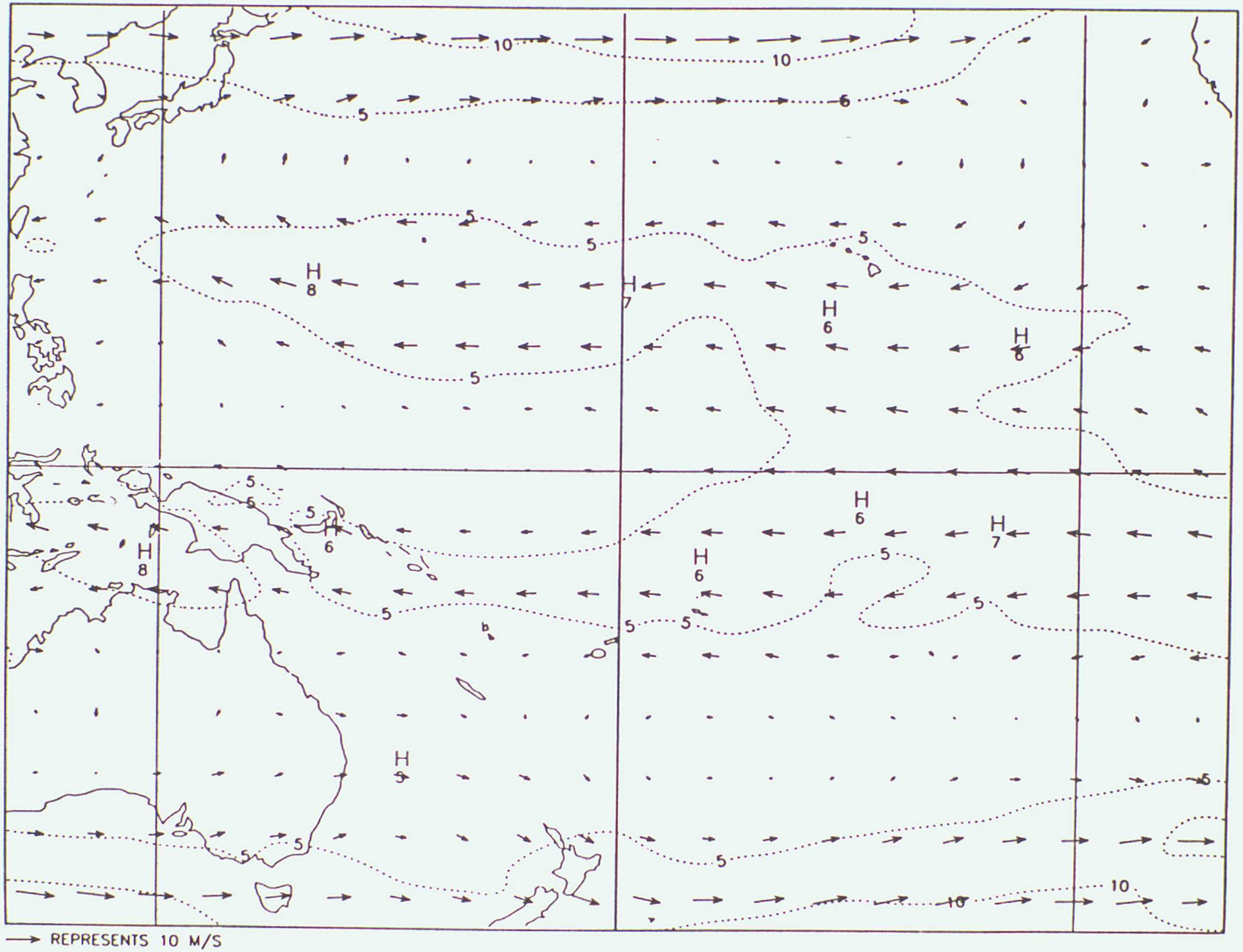

1656
1644
20
H
1668
1632
1620
1608
1596
1584
1572
1560
1548
1536
1524
1512
1500
1488
1476
1464
1454
1426
1488
1512
1572
1584
1596
1608
1620
1644
1656

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

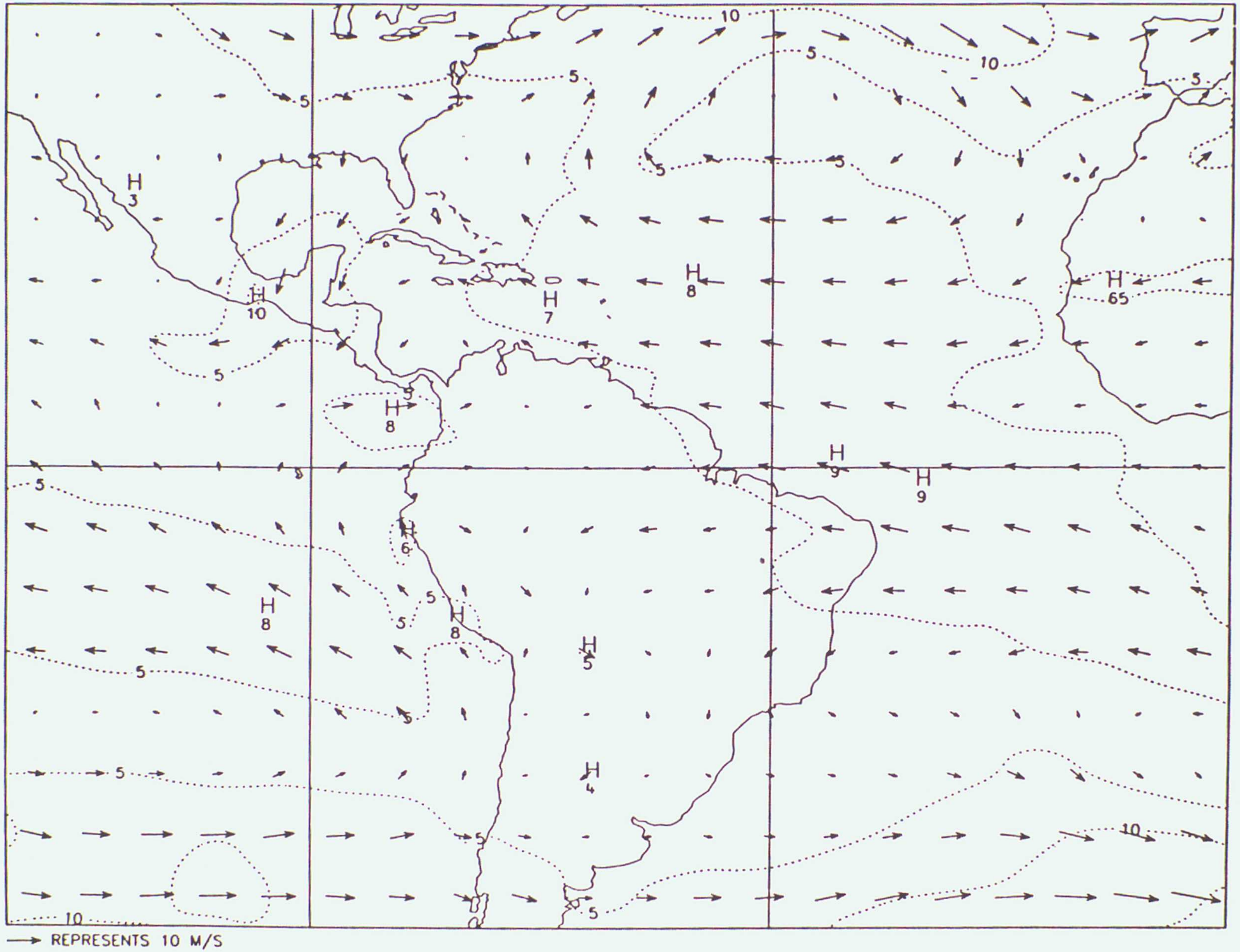
OPERATIONAL ARCHIVE MEANS. OCTOBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
850 MBS. BETWEEN LONGS. 0 E - 120 E


H 7
H 4
H 6 5
H 3
H 3
H 8
H 6
H 6
H 3
H 3
H 10
H 5
H 8
H 8
H 9
H 10
H 7
H 7
H 7
H 5 3
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/10/1987 DAY 274   DATA TIME 12Z ON 31/10/1987 DAY 304
850 MBS.   BETWEEN LONGS. 120 E - 120 W


10
10
5
6
5
5
H 8
H 7
H 6
H 6
5
5
H 8
H 6
H 6
H 6
H 7
5
5
5
5
H 5
5
5
5
10
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
850 MBS.   BETWEEN LONGS. 120 W - 0 W


10
5
10
5
5
5
5
H
3
H
10
5
H
7
H
8
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65
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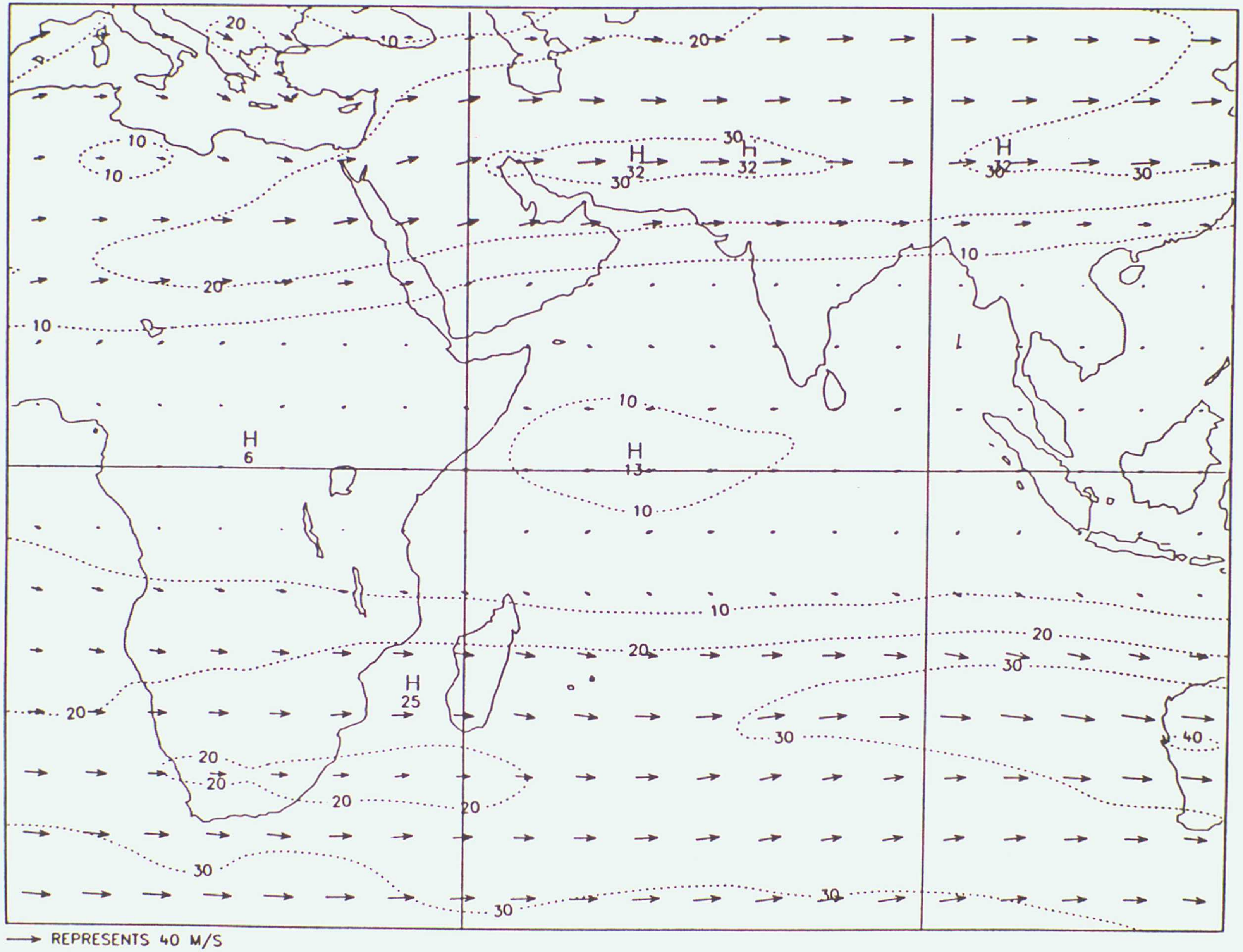
5
H
9
H
9
5
H
6
H
8
H
8
5
5
H
5
5
5
H
4
5
10
10
5
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
VALID AT   0Z ON 1/10/1987 DAY 274   DATA TIME 12Z ON 31/10/1987 DAY 304
250 MBS.   BETWEEN LONGS. 0 E - 120 E


20
10
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10
10
H
32
30
30
H
32
H
32
30
30
20
10
10
10
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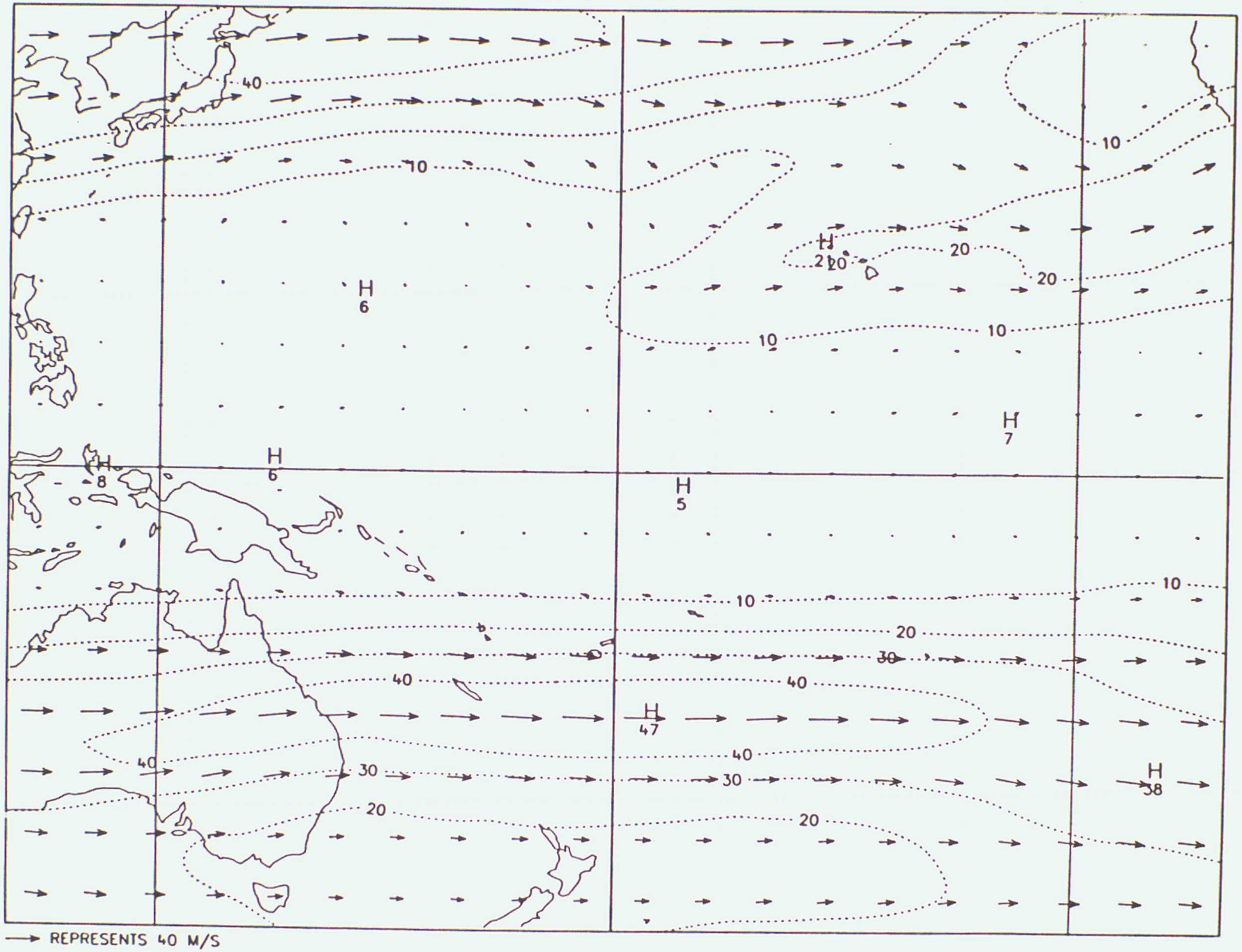
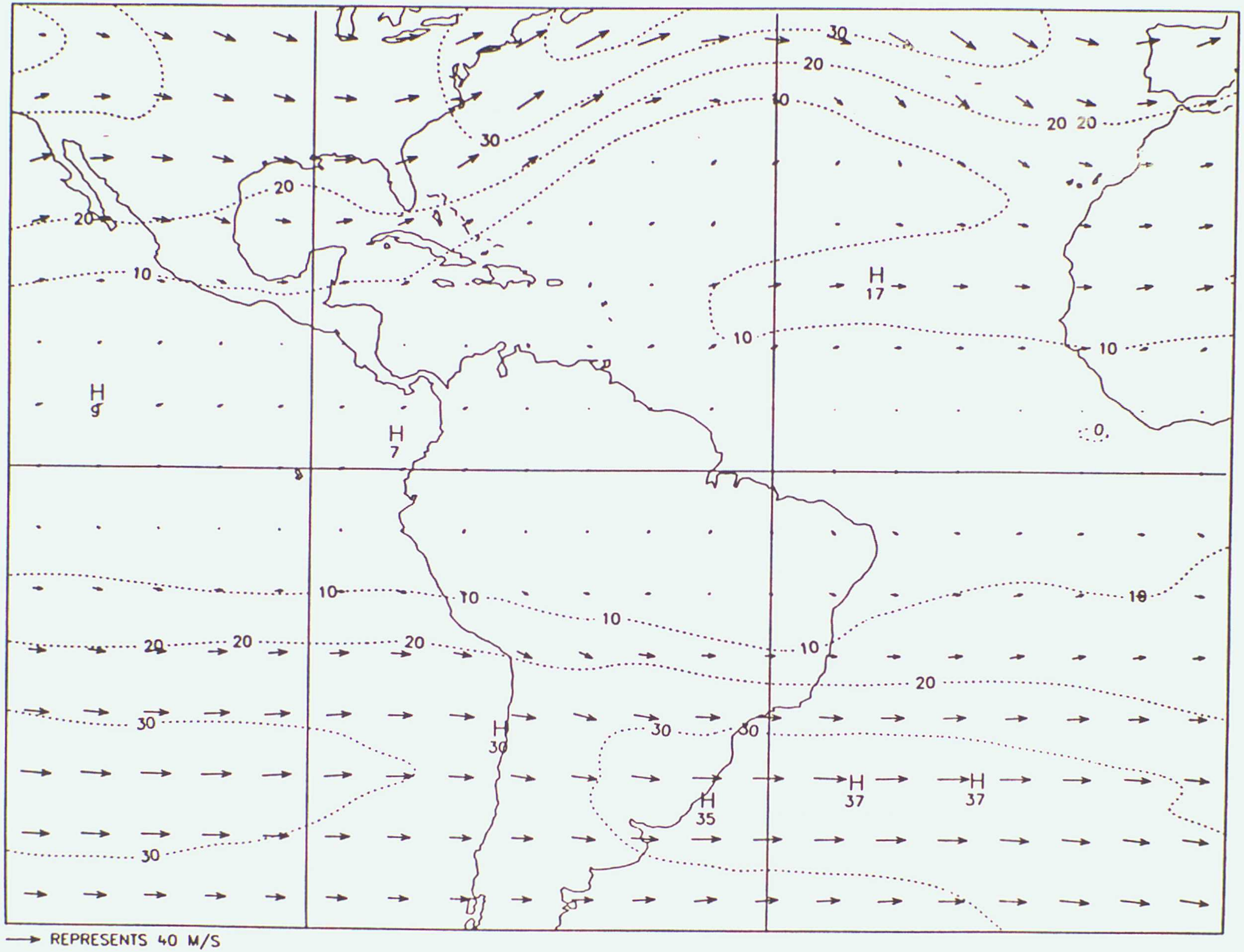
6
H
13
10
10
20
30
H
25
20
30
40
20
20
20
20
30
30
30
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
250 MBS.   BETWEEN LONGS. 120 E - 120 W

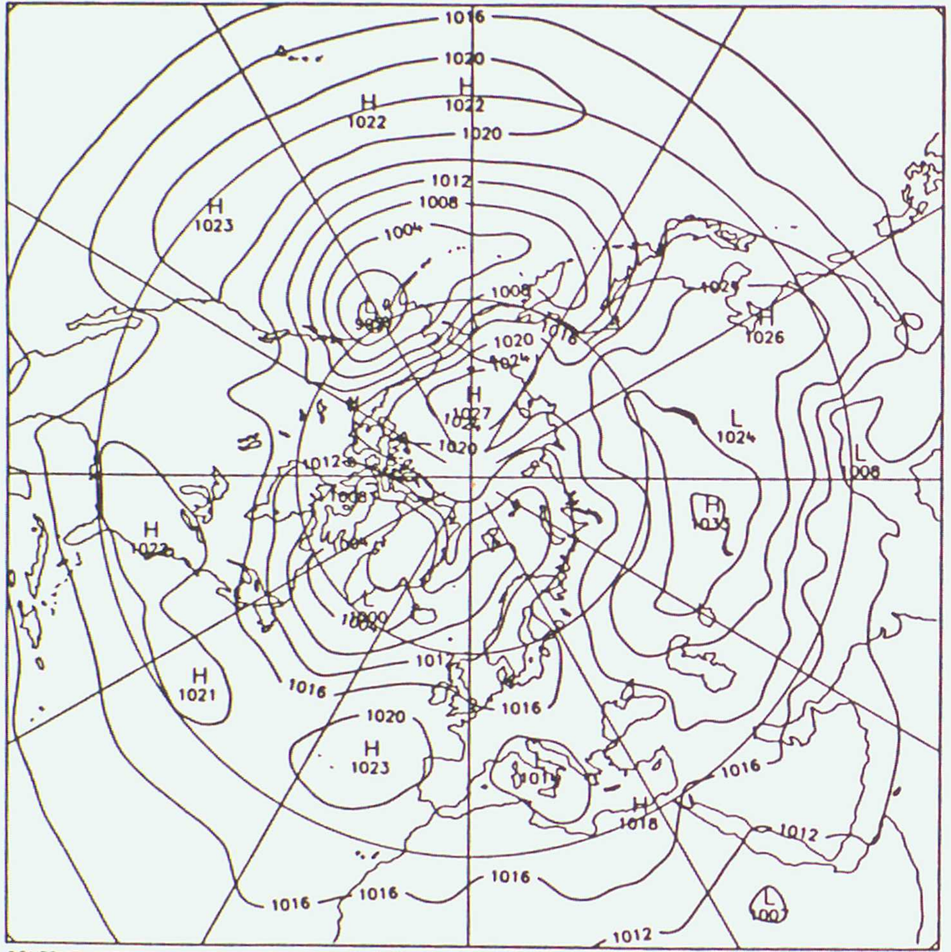

40
10
10
H
6
H
21
20
20
20
10
10
H
7
H
8
H
6
H
5
10
10
20
30
40
40
H
47
40
40
30
30
H
38
20
20
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. OCTOBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/10/1987 DAY 274 DATA TIME 12Z ON 31/10/1987 DAY 304
250 MBS. BETWEEN LONGS. 120 W - 0 W


30
20
10
20 20
30
20
20
10
H 17
10
10
H 9
H 7
0
10
10
10
10
10
20
20
20
20
20
30
H 30
30
30
H 35
H 37
H 37
30
→ REPRESENTS 40 M/S

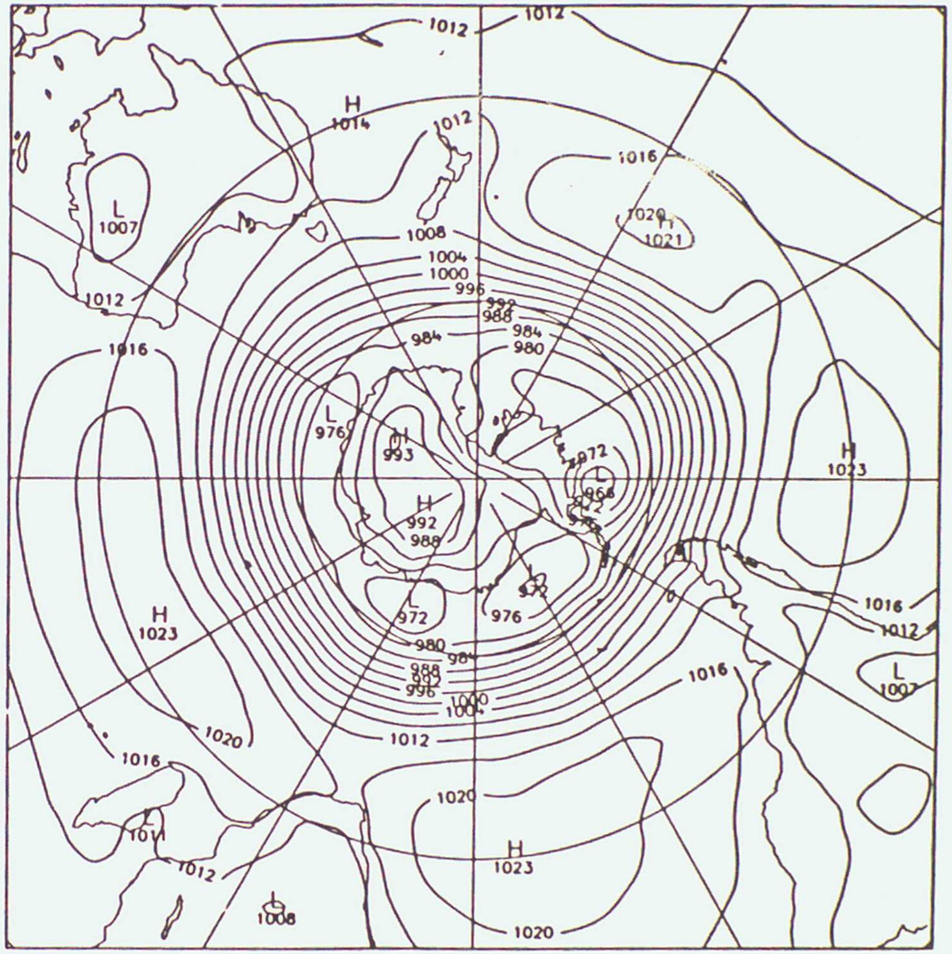
NOVEMBER
1987

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
PMSL
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
SEA LEVEL


1016
1020
H 1022
H 1022
1020
H 1023
1012
1008
1004
1008
1020
1024
1018
H 1027
1020
1024
H 1026
L 1024
L 1008
H 1035
1012
1008
H 1022
1004
L 1000
H 1021
1016
1012
1016
1020
H 1023
1016
1019
1016
H 1018
1012
1016
1016
1016
L 1007
1012

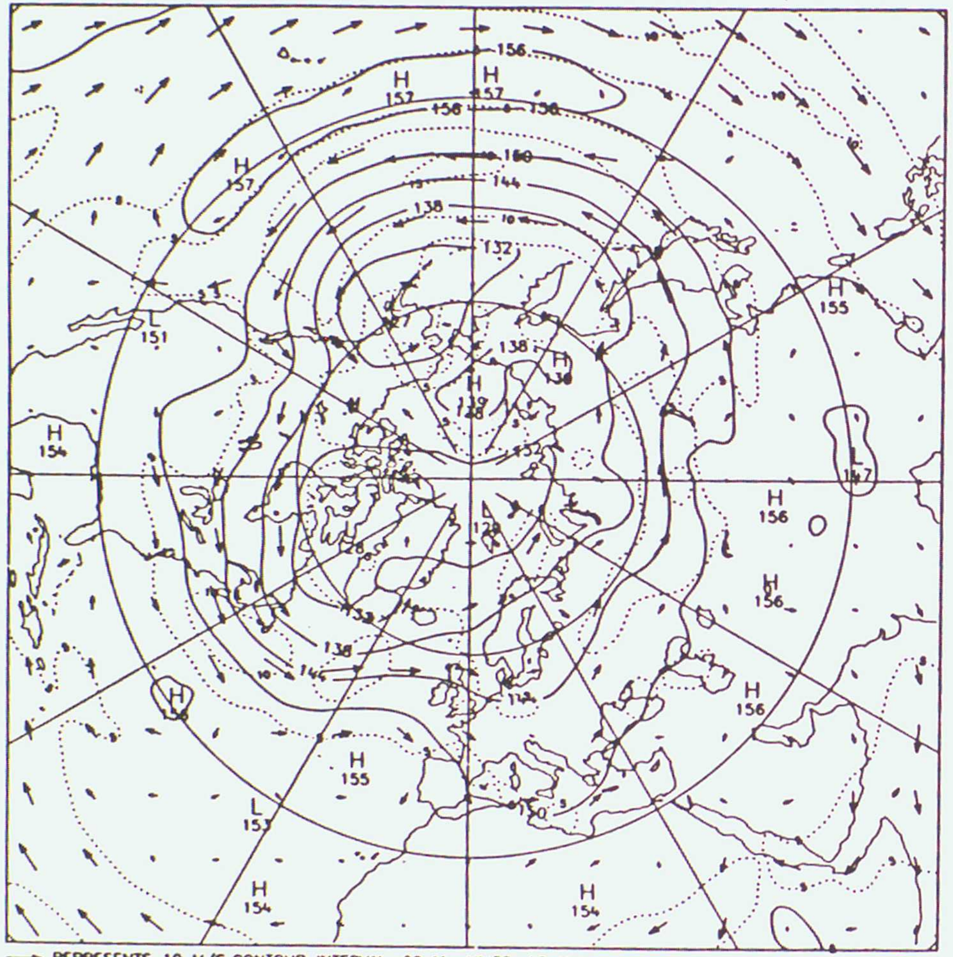
CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
PMSL
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
SEA LEVEL


1012
1012
H 1014
1012
L 1007
1016
1020
H 1021
1008
1004
1000
996
992
988
984
984
980
1012
1016
L 976
H 993
972
L 968
H 1023
H 992
988
H 1023
L 972
976
980
984
988
992
996
1000
1004
1016
1012
L 1007
1016
1020
1012
1016
L 1011
1012
1020
H 1023
L 1008
1020

CONTOUR INTERVAL: 4 MB UNITS: MB

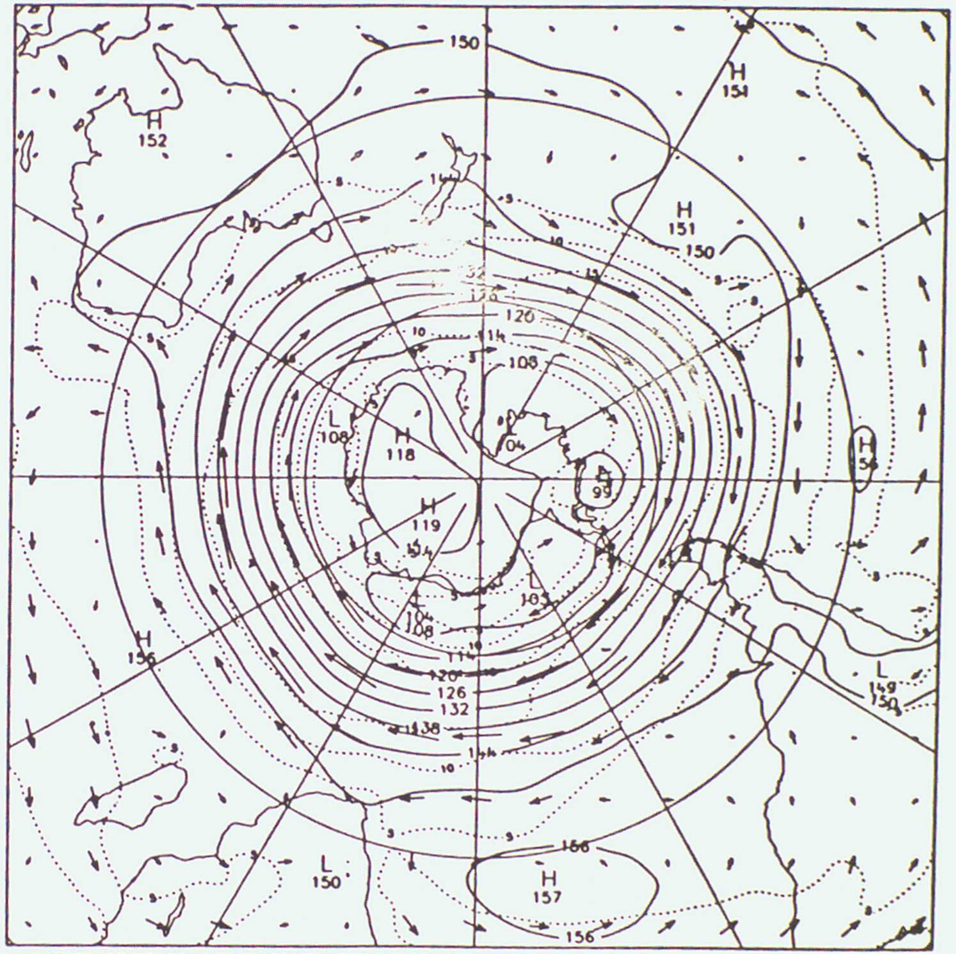
OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 850 MB



H 157
H 157
156
158
150
144
138
132
H 157
L 151
H 155
138
H 138
128
H 154
L 147
H 156
H 156
132
H 156
H 155
L 153
H 154
H 154
150

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

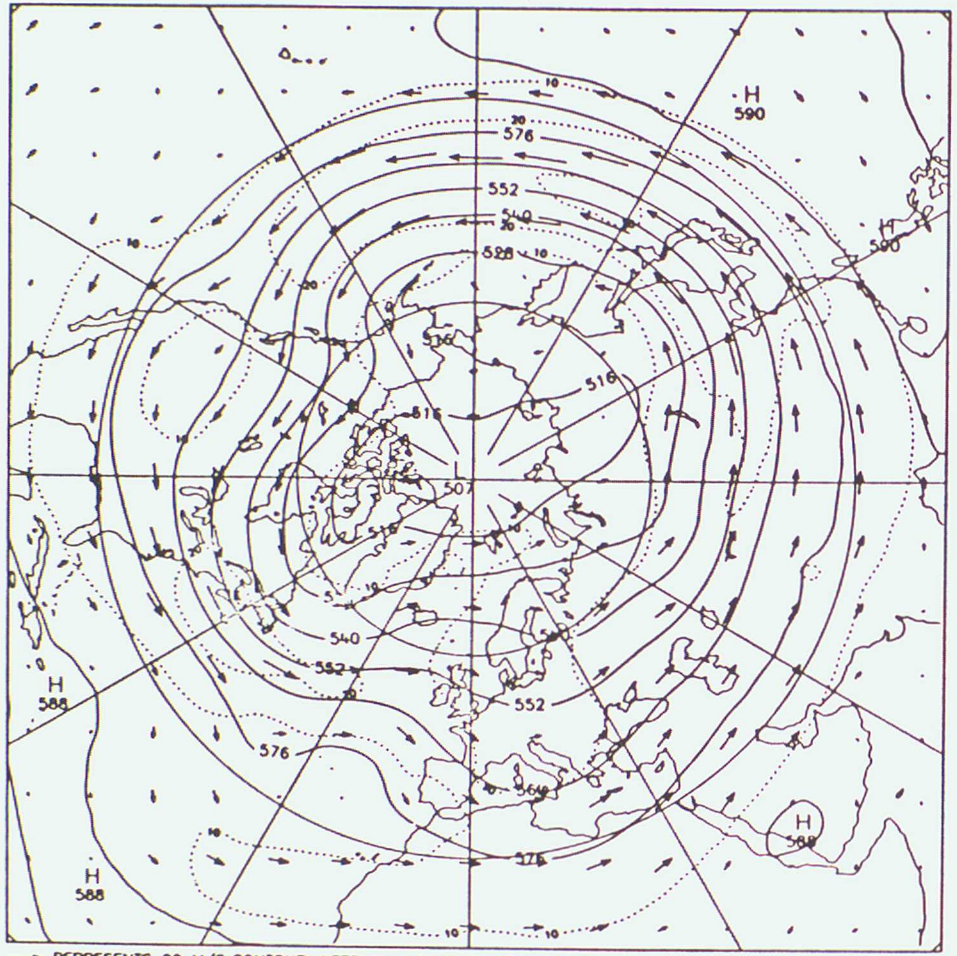
OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 850 MB



150
H 151
H 152
H 151
150
120
114
108
L 108
H 118
104
H 119
99
H 154
L 103
108
114
120
126
132
138
144
H 156
L 149
150
L 150
156
H 157
156

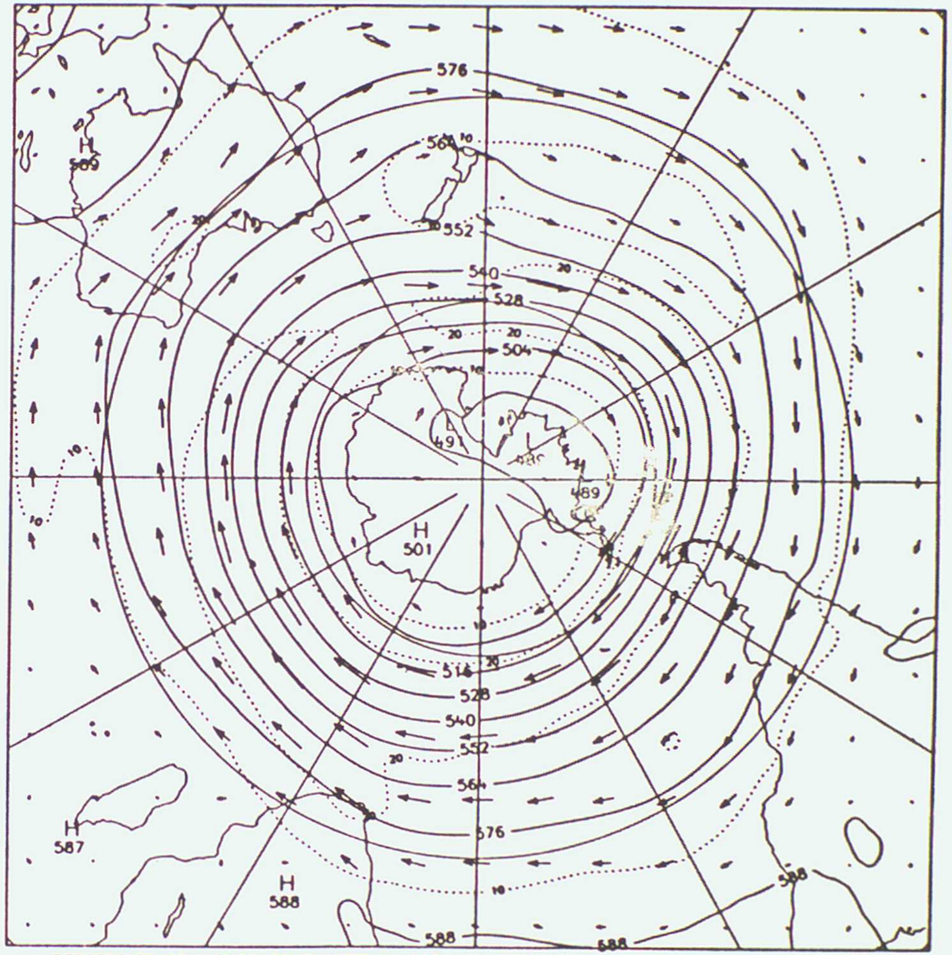
→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 500 MB


H
590
H
590
576
552
540
528
516
516
516
507
540
552
552
564
576
576
H
588
H
588
H
588
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 500 MB


576
H
589
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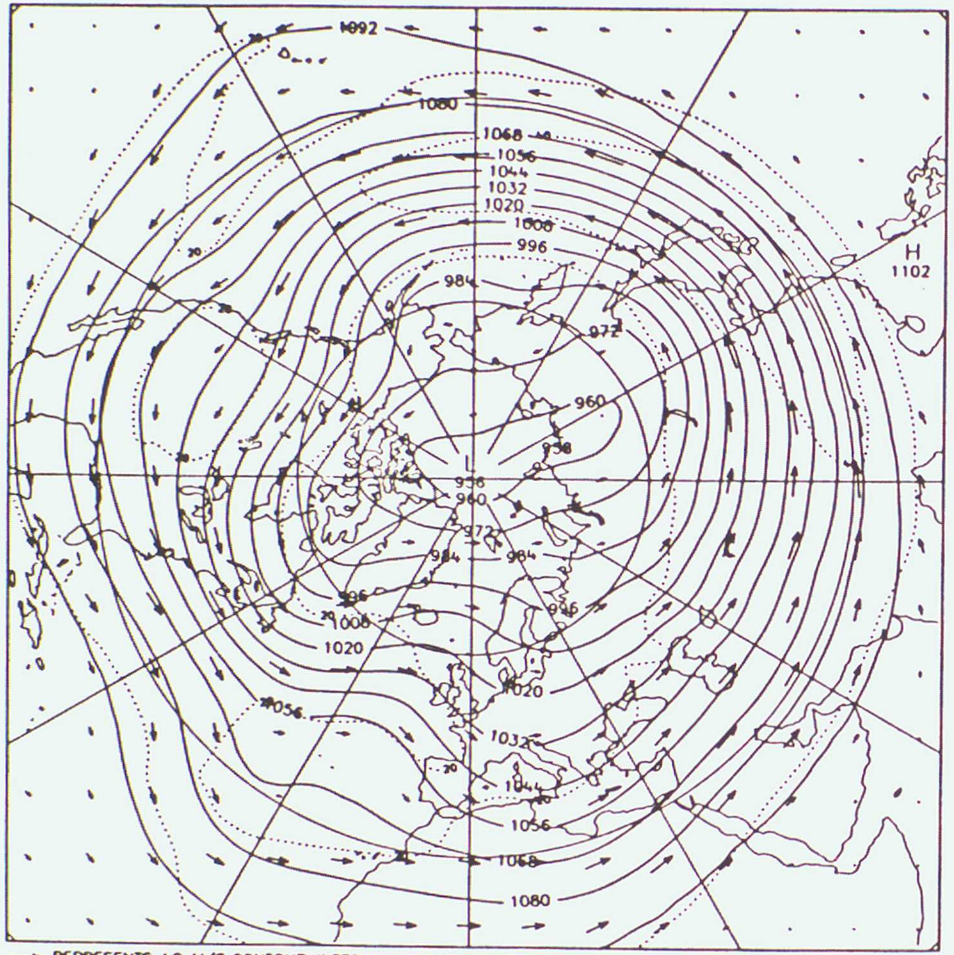
552
540
528
504
49
489
H
501
516
528
540
552
564
576
H
587
H
588
588
588
588
10
20

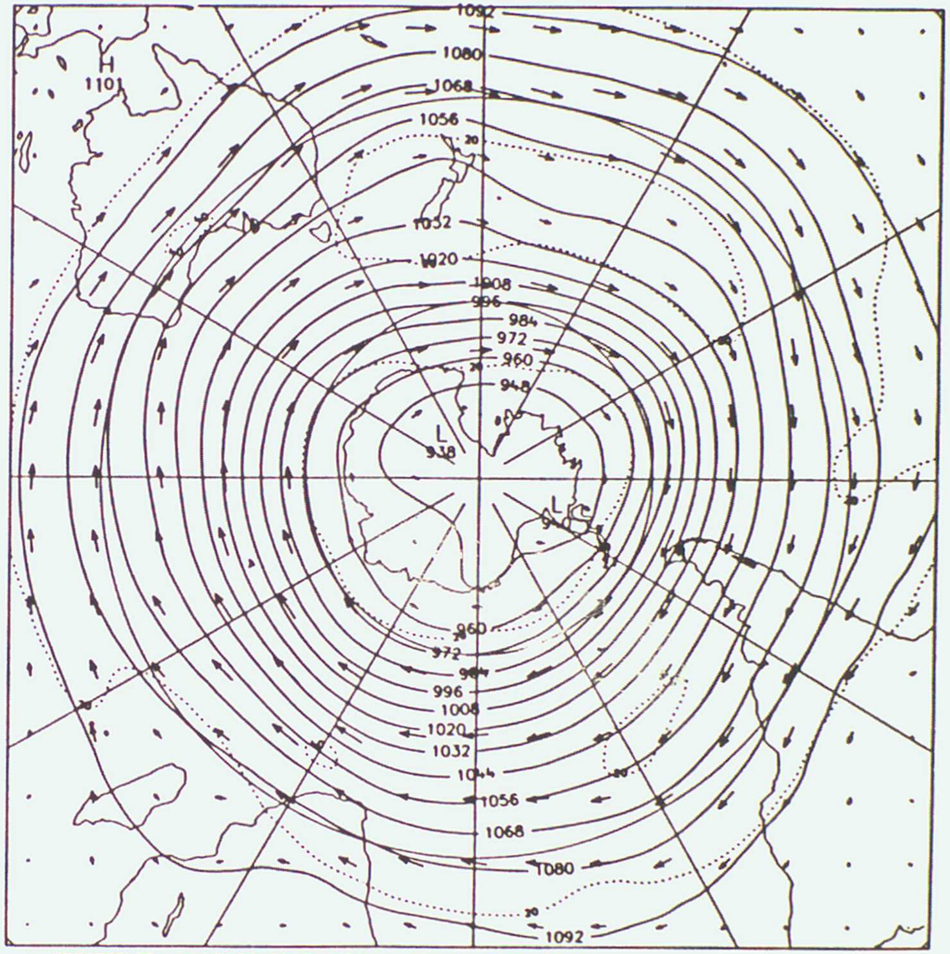
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 250 MB


1092
1080
1068
1056
1044
1032
1020
1008
996
984
972
960
948
936
L
H
1102
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 250 MB


H
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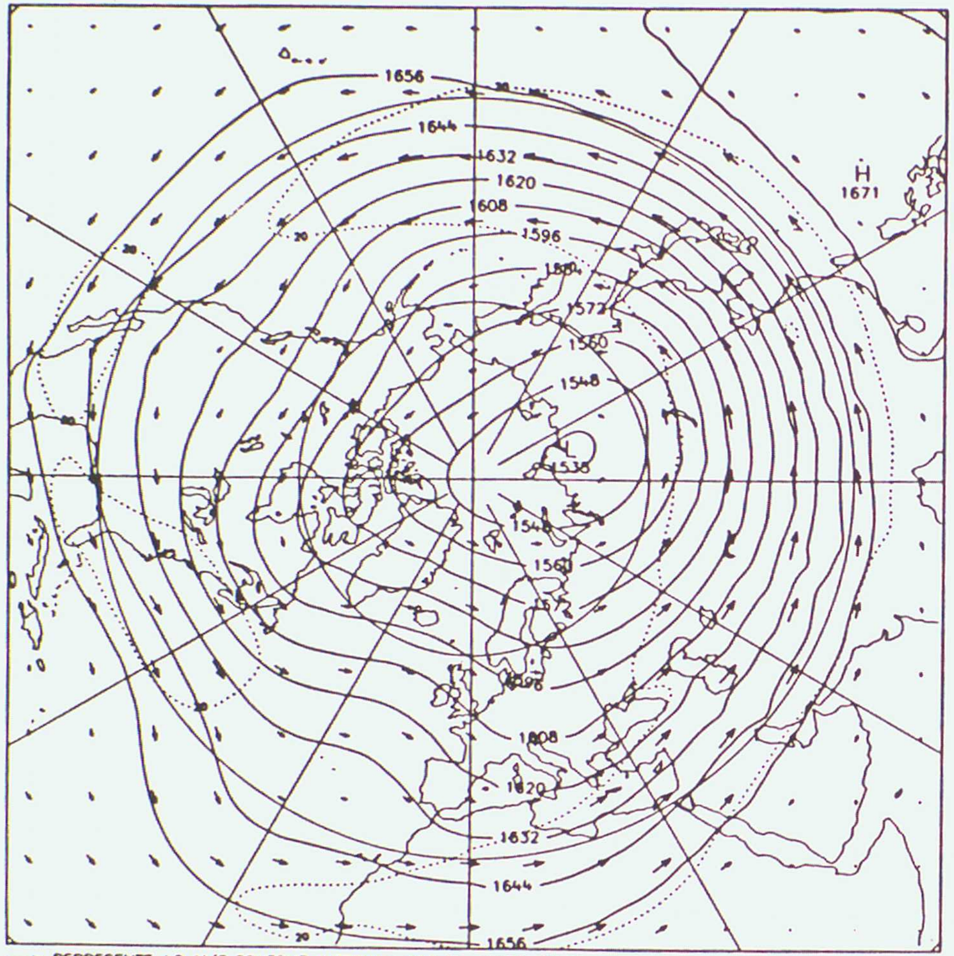
1092
1080
1068
1056
1032
1020
1008
996
984
972
960
948
938
L
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 100 MB


1656
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1620
1608
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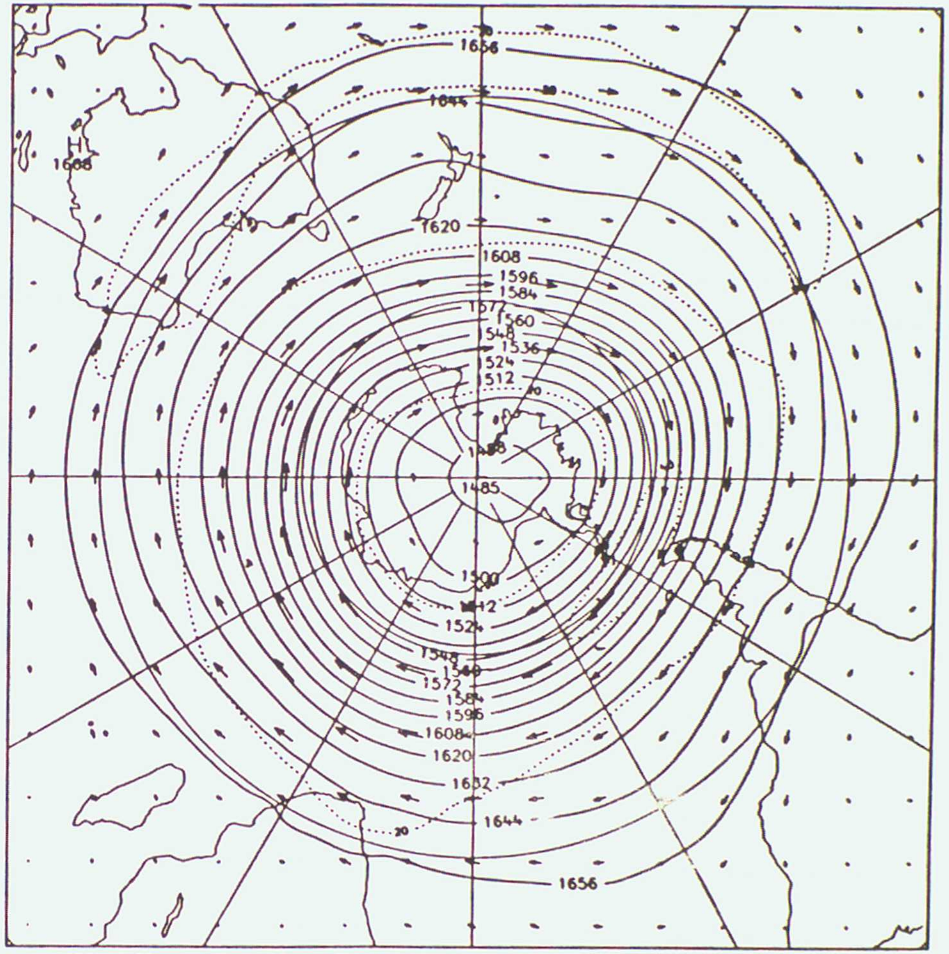
1584
1572
1560
1548
L
1536
H
1671
20
30

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 100 MB


H
1668
1656
1644
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1572
1560
1548
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1524
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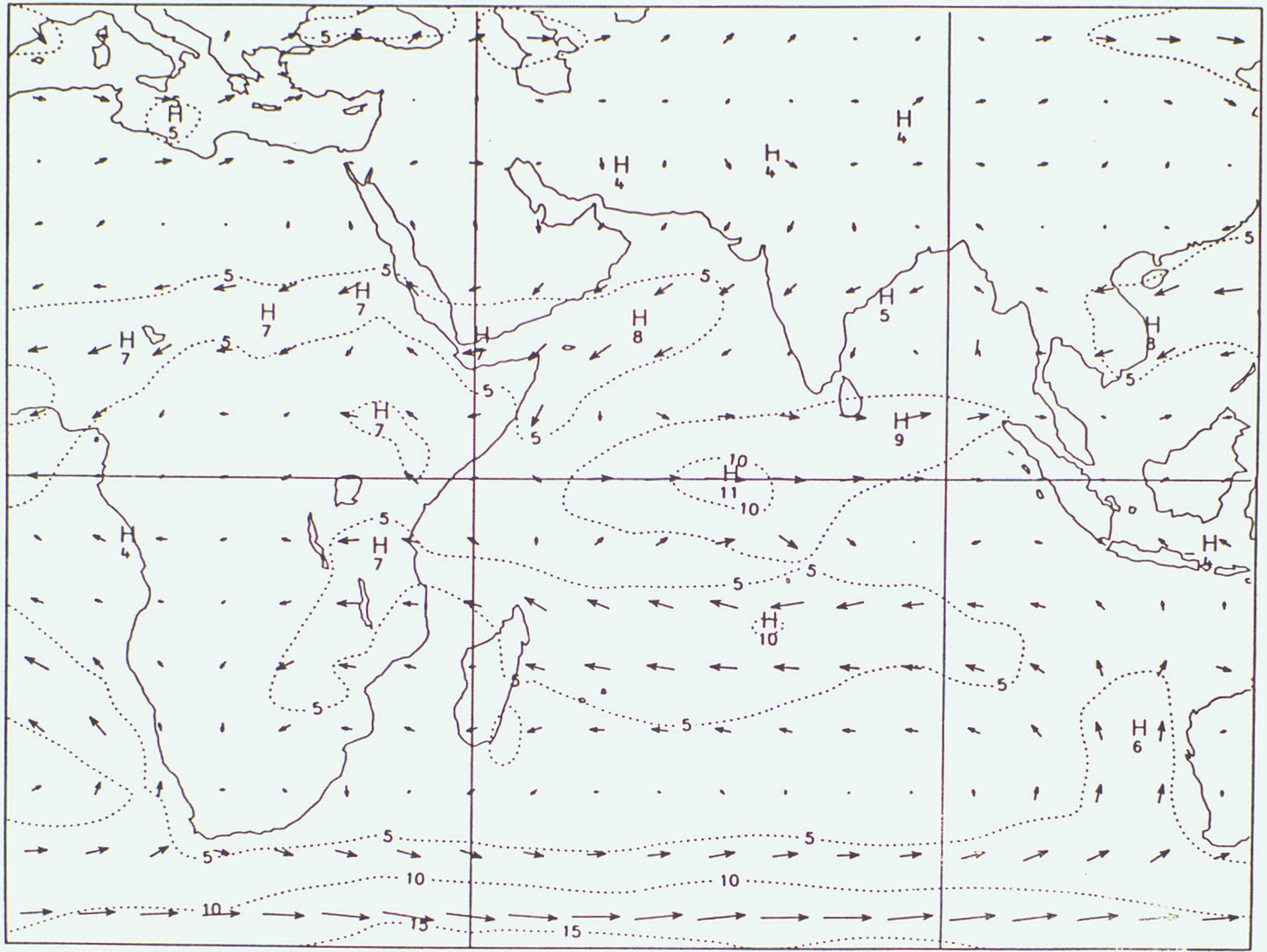
1488
1485
1500
1512
1524
1548
1560
1572
1584
1596
1608
1620
1632
1644
1656
20
30

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
850 MBS. BETWEEN LONGS. 0 E - 120 E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H
7
H
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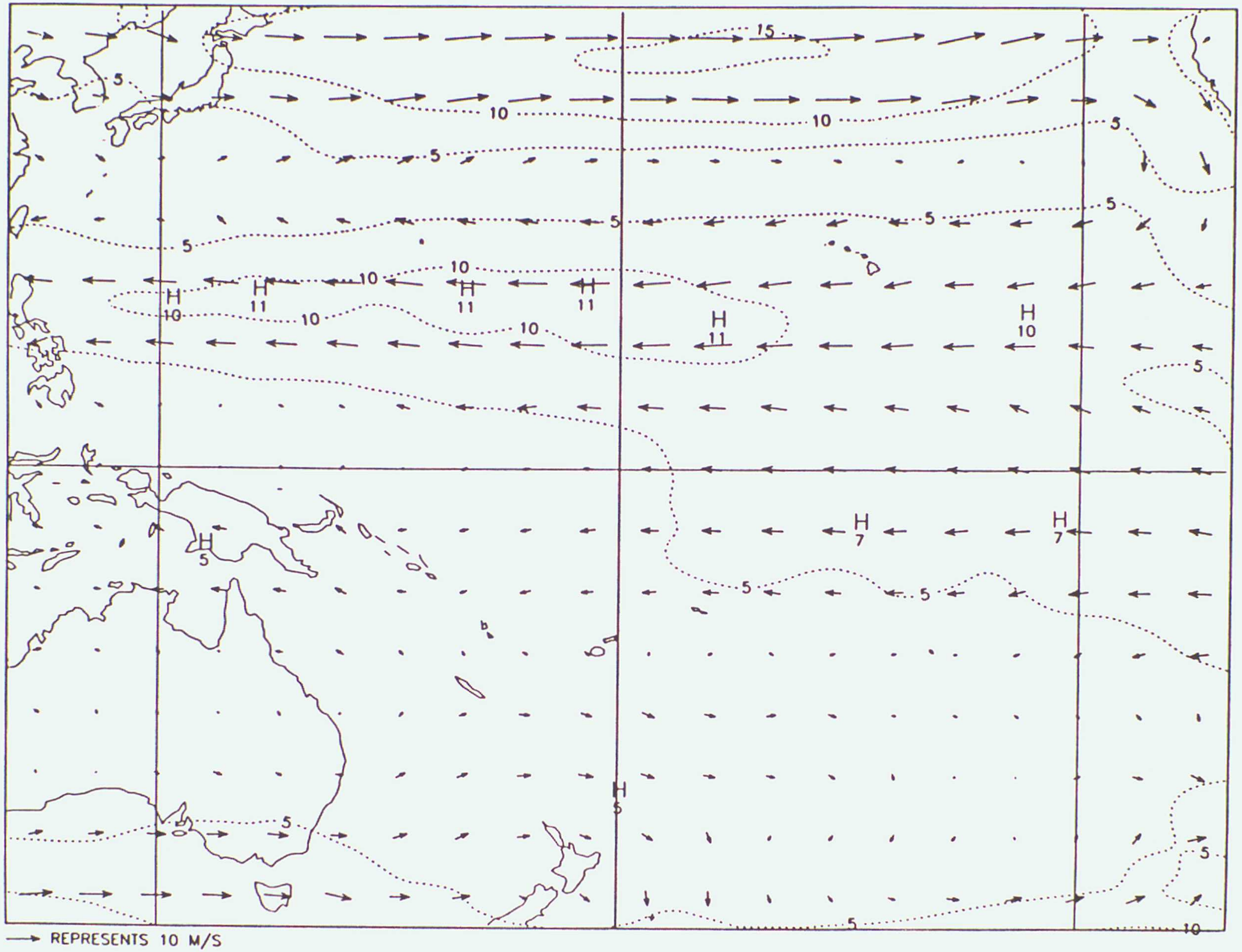
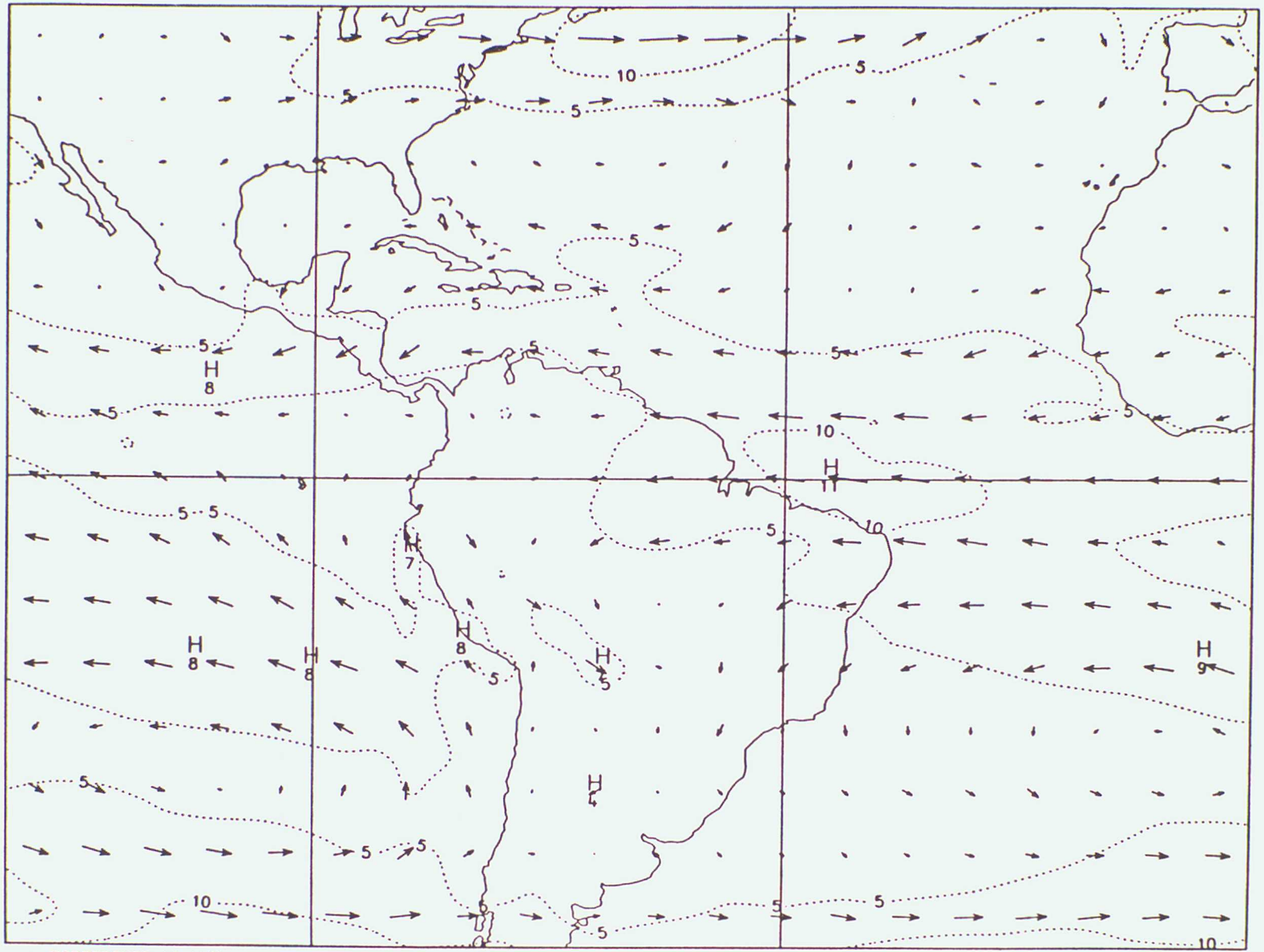
H
7
H
4
H
7
H
7
H
4
H
4
H
8
H
10
H
11
10
10
H
10
H
5
H
4
H
9
H
8
H
6
H
6
5
10
15

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
850 MBS. BETWEEN LONGS. 120 E - 120 W

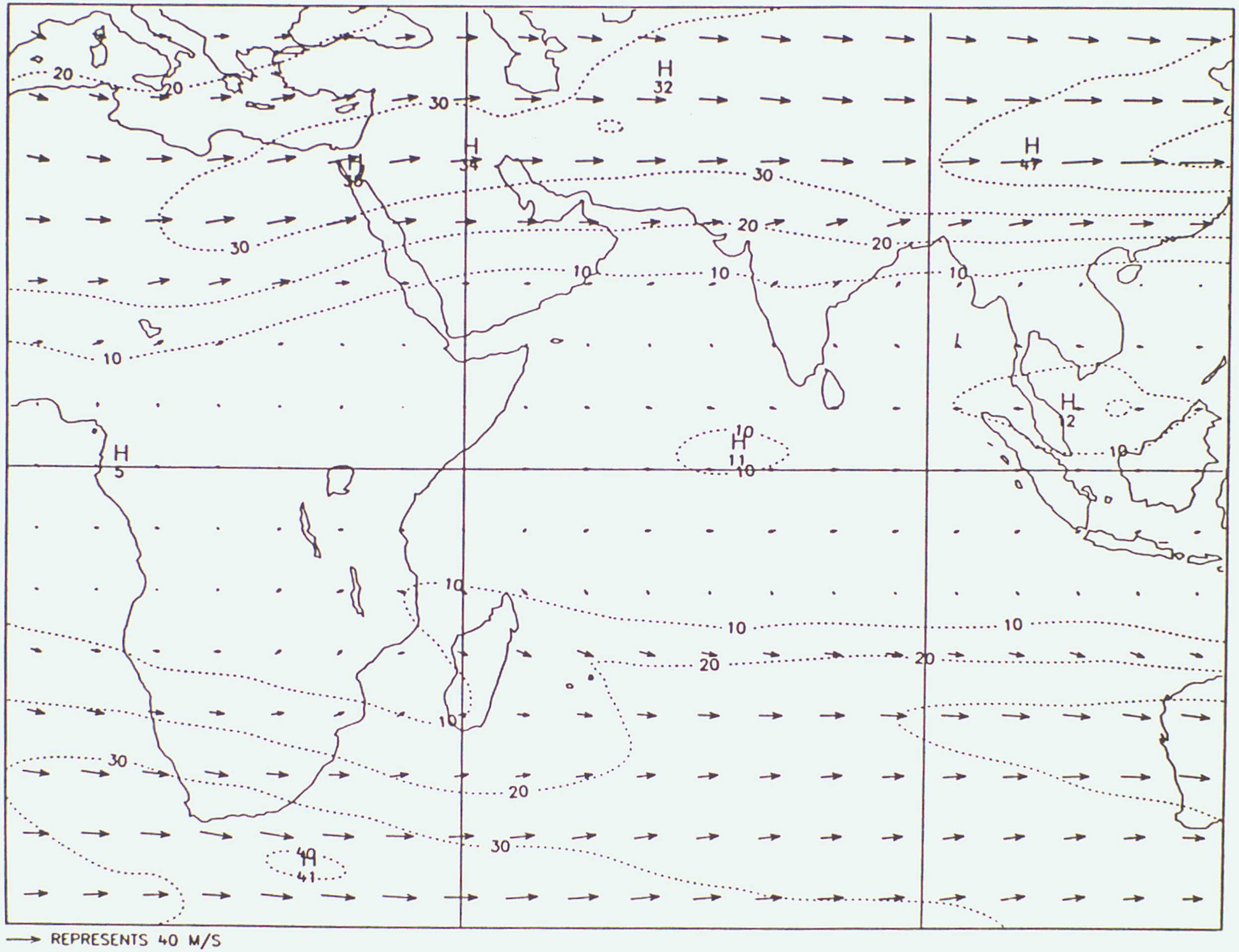

15
10
5
H 10
H 11
H 7
H 5
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   NOVEMBER   1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
850 MBS.   BETWEEN LONGS. 120 W - 0 W

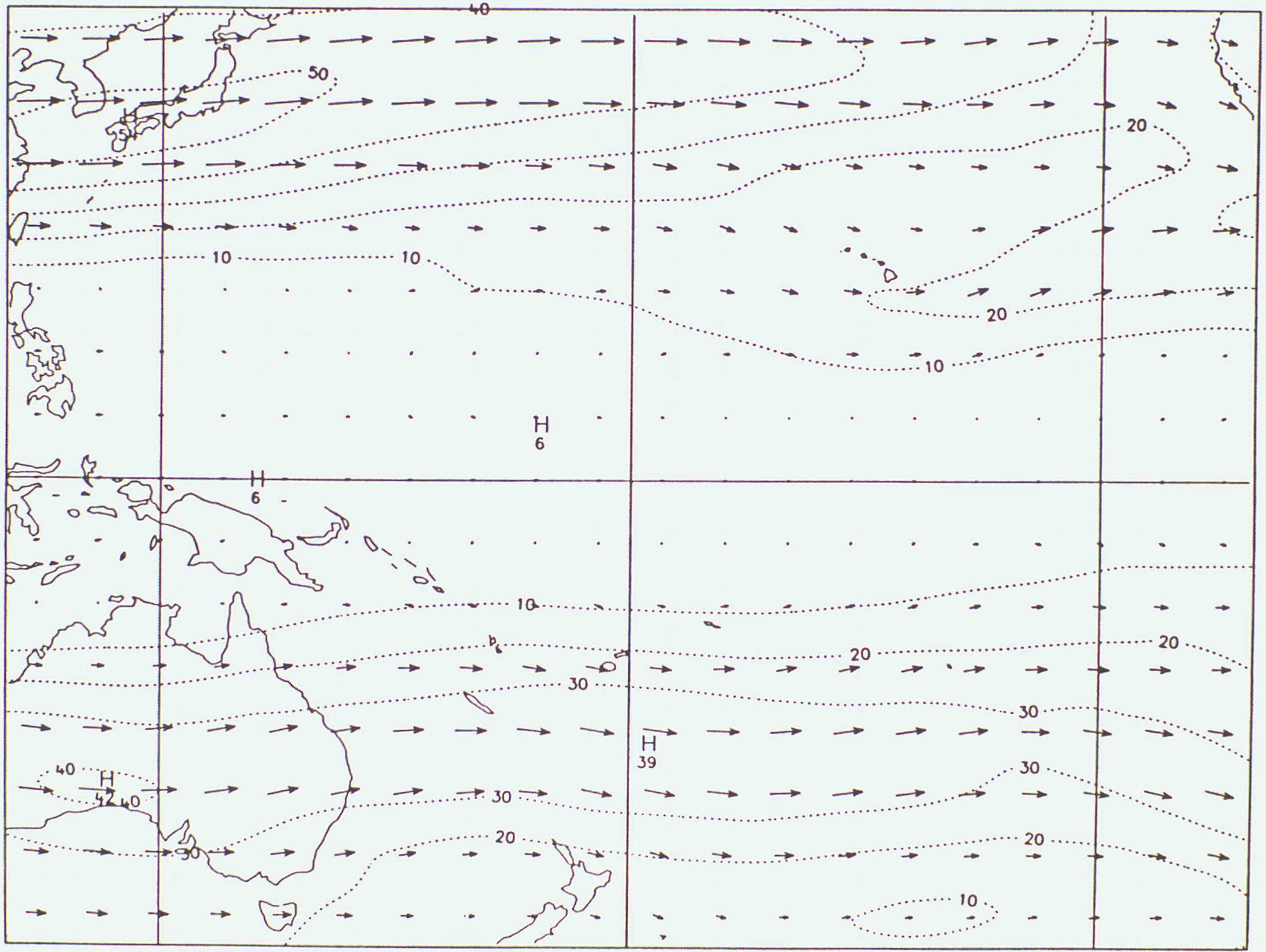


→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
250 MBS. BETWEEN LONGS. 0 E - 120 E


H
32
H
34
H
38
H
47
H
12
H
11
H
5
H
41
10
20
30
40
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
250 MBS. BETWEEN LONGS. 120 E - 120 W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20
30
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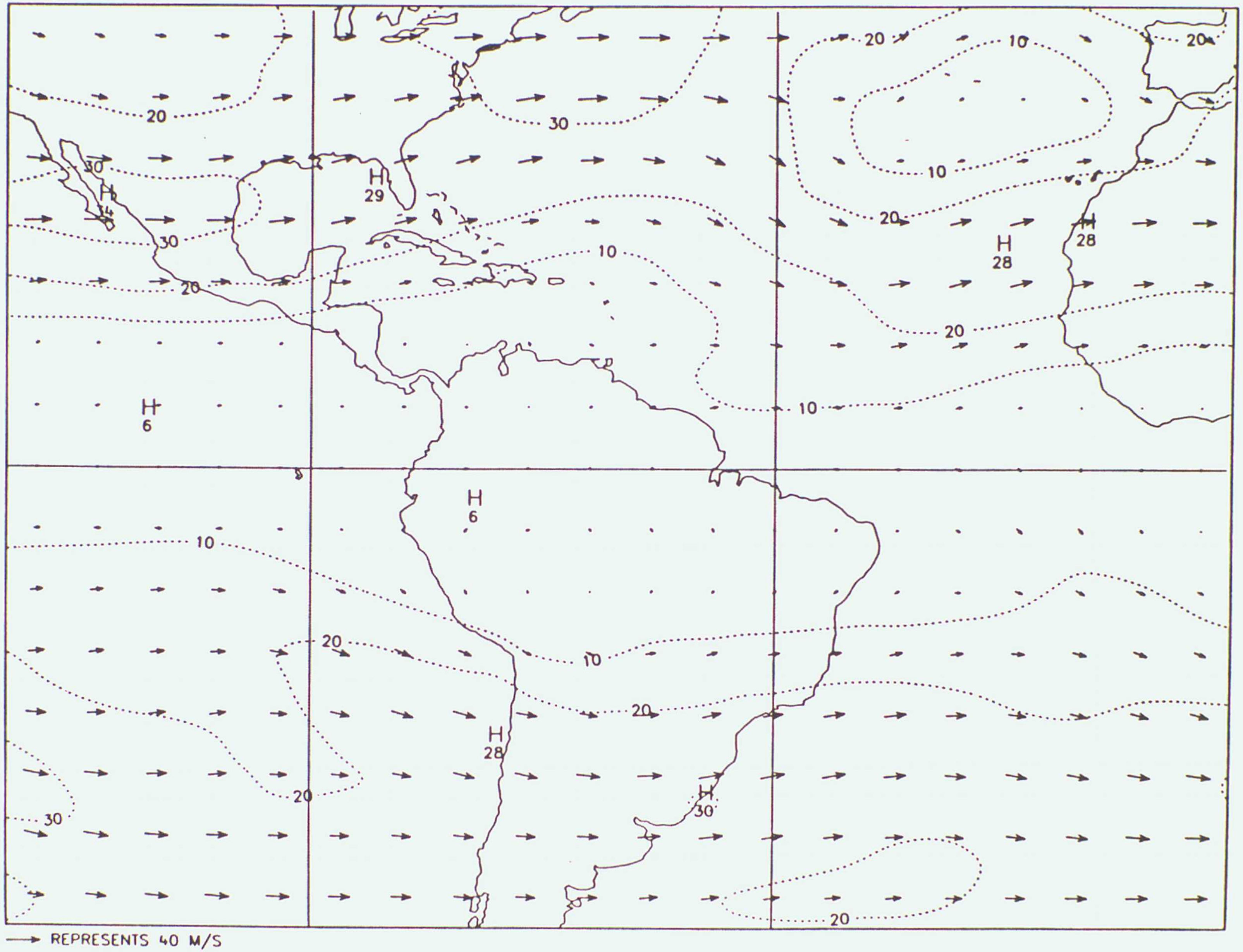
H
39
30
40
H
42
40
30
20
30
20
20
10

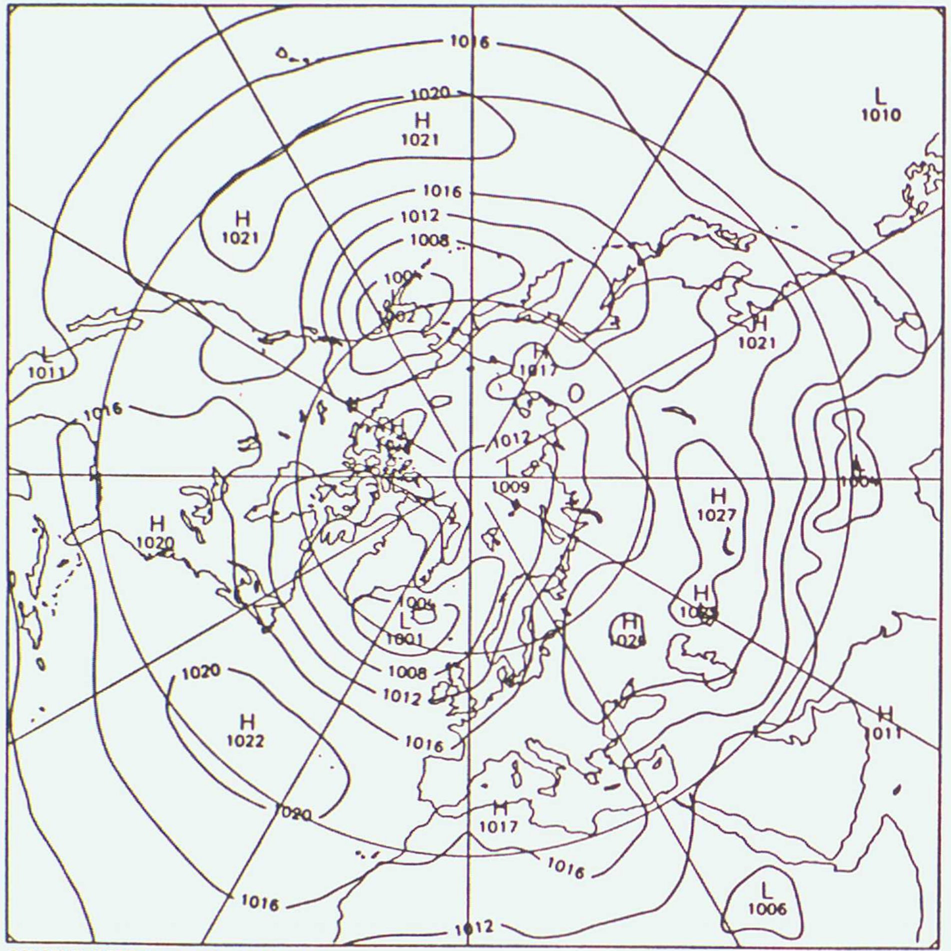
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/11/1987 DAY 305 DATA TIME 12Z ON 30/11/1987 DAY 334
250 MBS. BETWEEN LONGS. 120 W - 0 W


20
30
10
20
30
H 34
H 29
H 28
H 28
H 6
H 6
H 28
H 30
→ REPRESENTS 40 M/S

SEPTEMBER/OCTOBER/NOVEMBER
1987

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
PMSL
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
SEA LEVEL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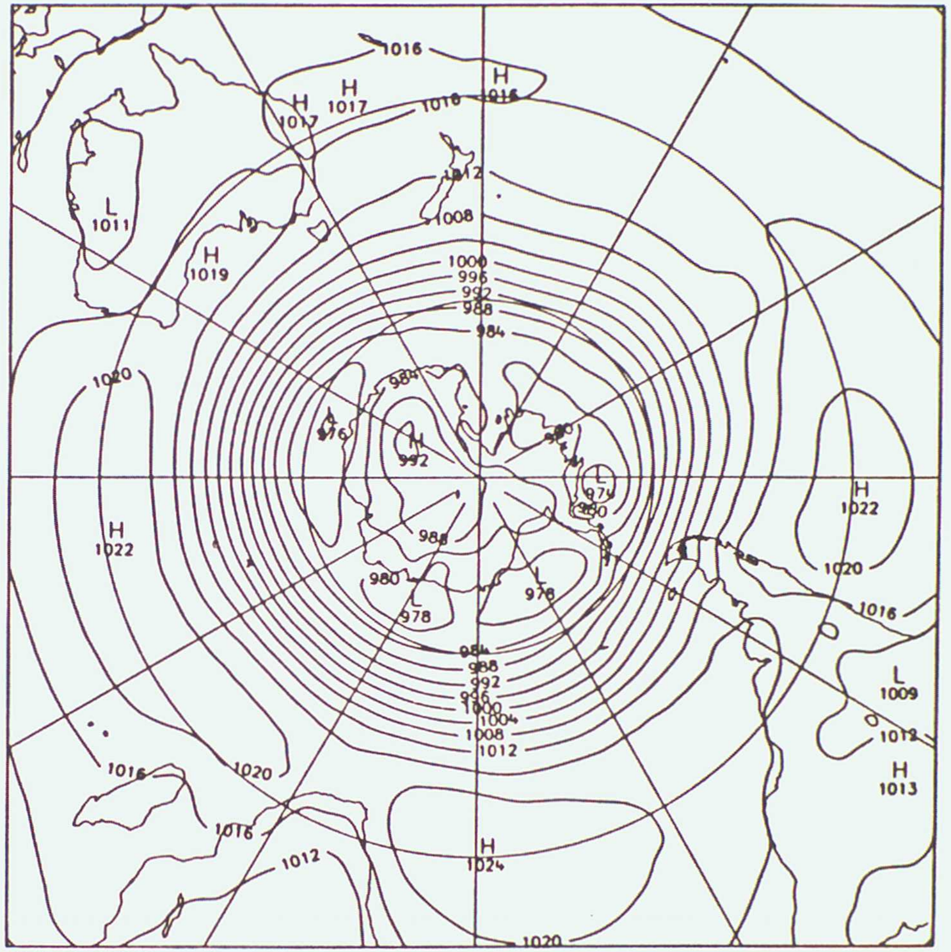
H
1027
1004
H
1020
L
1004
1001
H
1026
H
1023
1008
1020
1012
H
1022
1016
H
1011
H
1017
1020
1016
1016
L
1006
1012

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
PMSL
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
SEA LEVEL


1016
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1016
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1017
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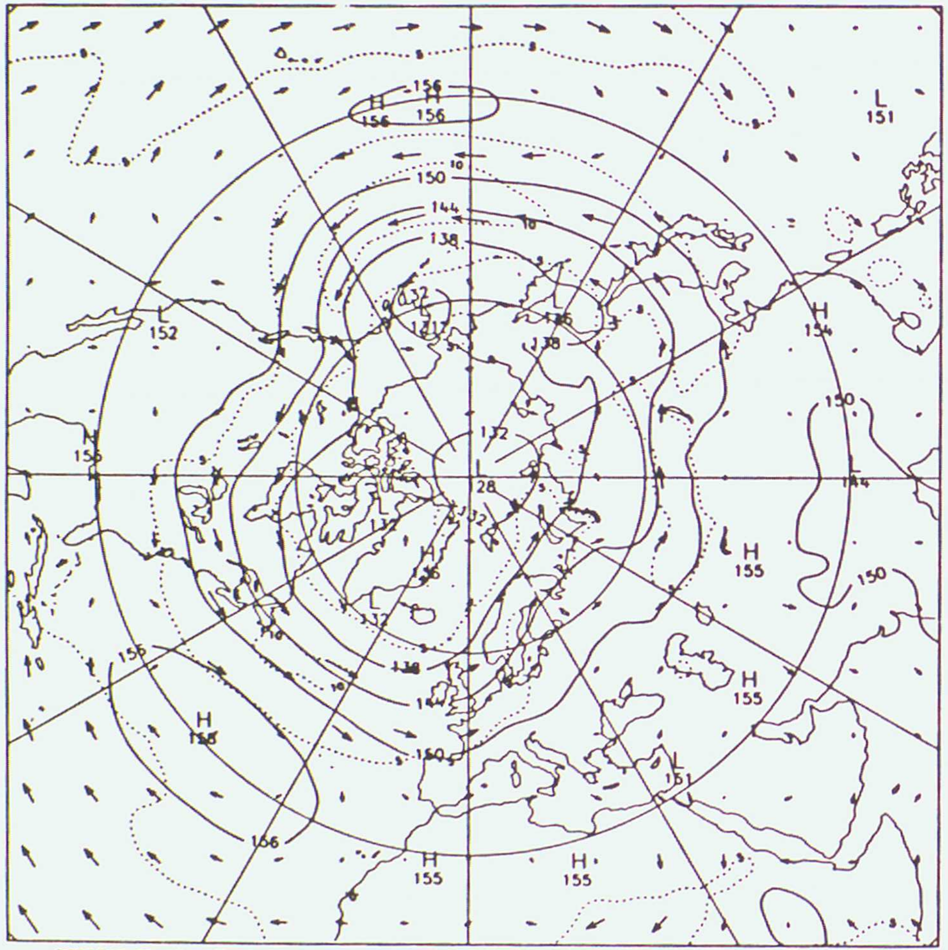
1017
1016
L
1011
1012
1008
H
1019
1000
996
992
988
984
1020
984
976
H
992
980
L
974
980
H
1022
H
1022
988
980
L
978
L
978
1020
984
988
992
996
1000
1004
1008
1012
1016
L
1009
1012
1016
1020
H
1013
1016
1012
H
1024
1020

CONTOUR INTERVAL: 4 MB UNITS: MB

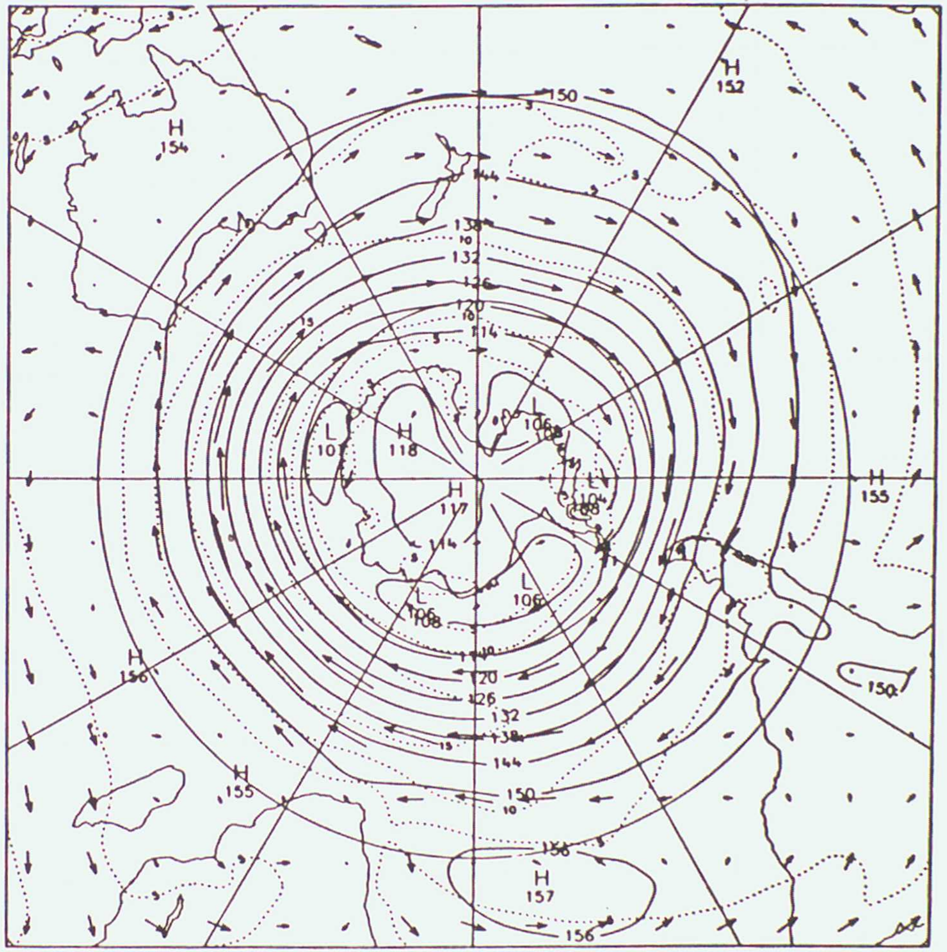
OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 850 MB



H 156
H 156
156
L 151
150
144
138
132
L 152
H 156
128
L 132
H 154
150
144
H 155
150
H 155
L 151
H 155
H 155
156
155
H 155

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

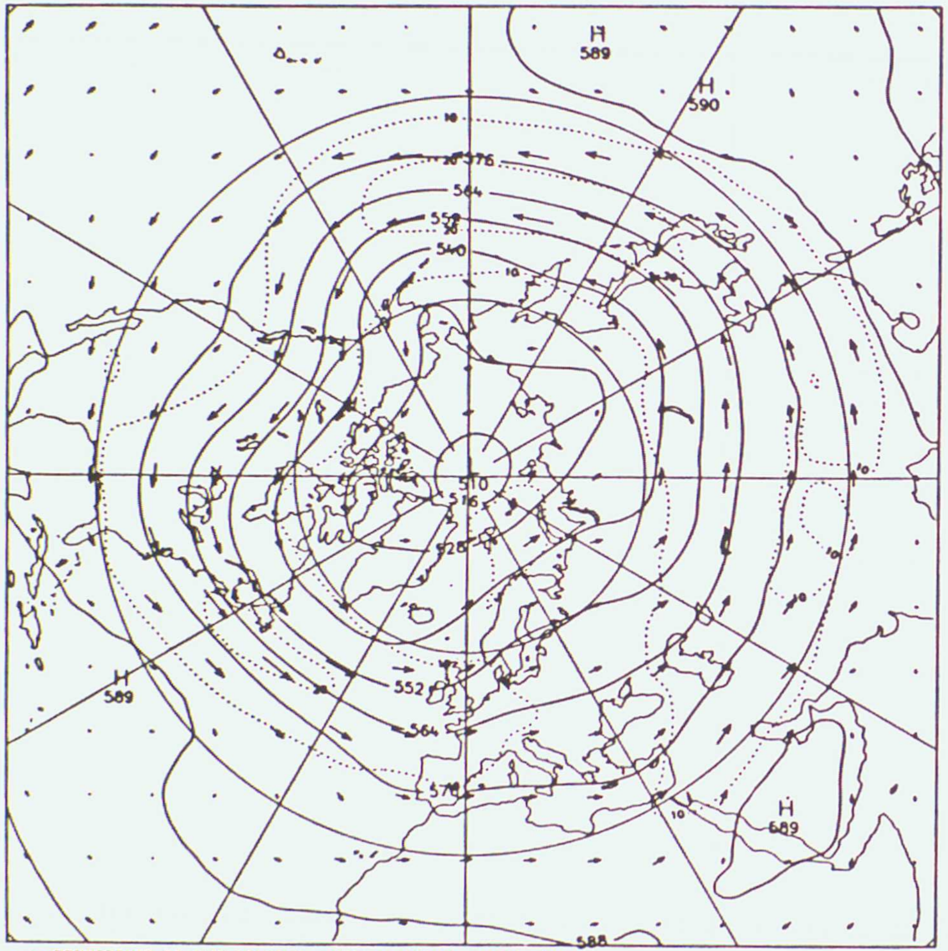
OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 850 MB



H 152
150
H 154
144
138
132
126
120
114
L 106
L 101
H 118
H 117
L 104
H 155
L 106
L 106
L 108
120
126
132
138
144
150
150
H 156
H 155
156
H 157
156

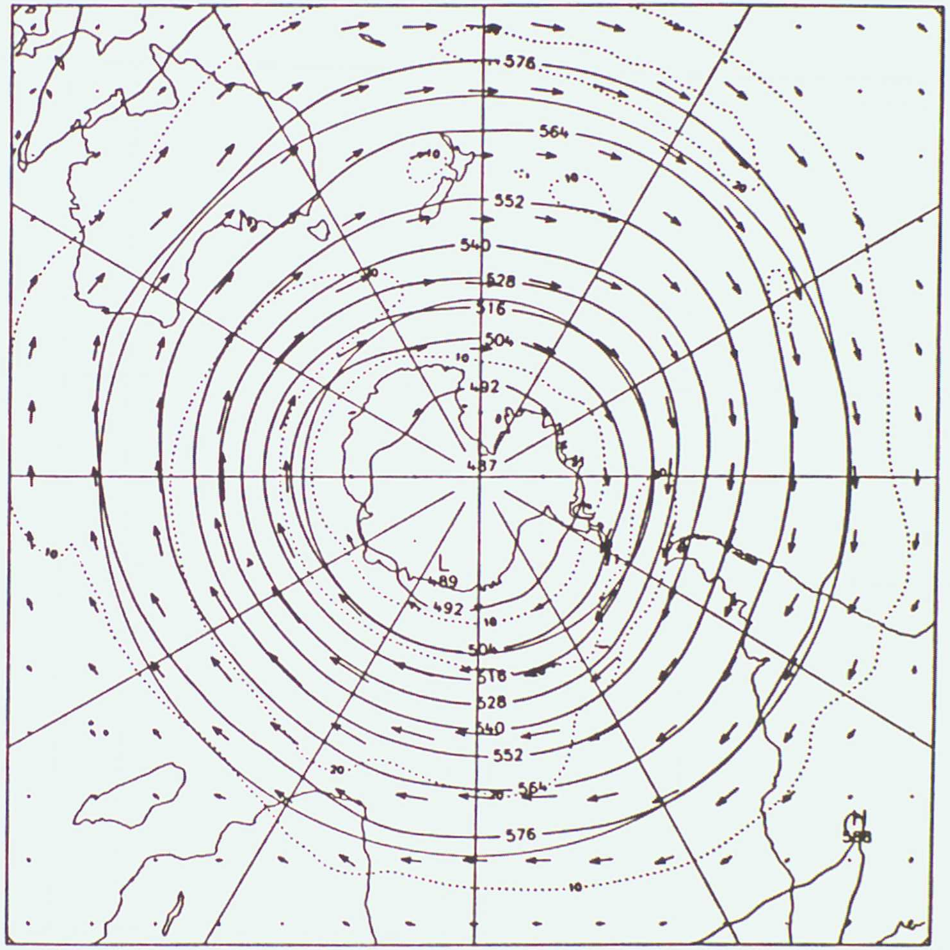
→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 500 MB


H
589
H
590
10
20
576
564
552
30
540
528
516
510
H
589
H
589
588

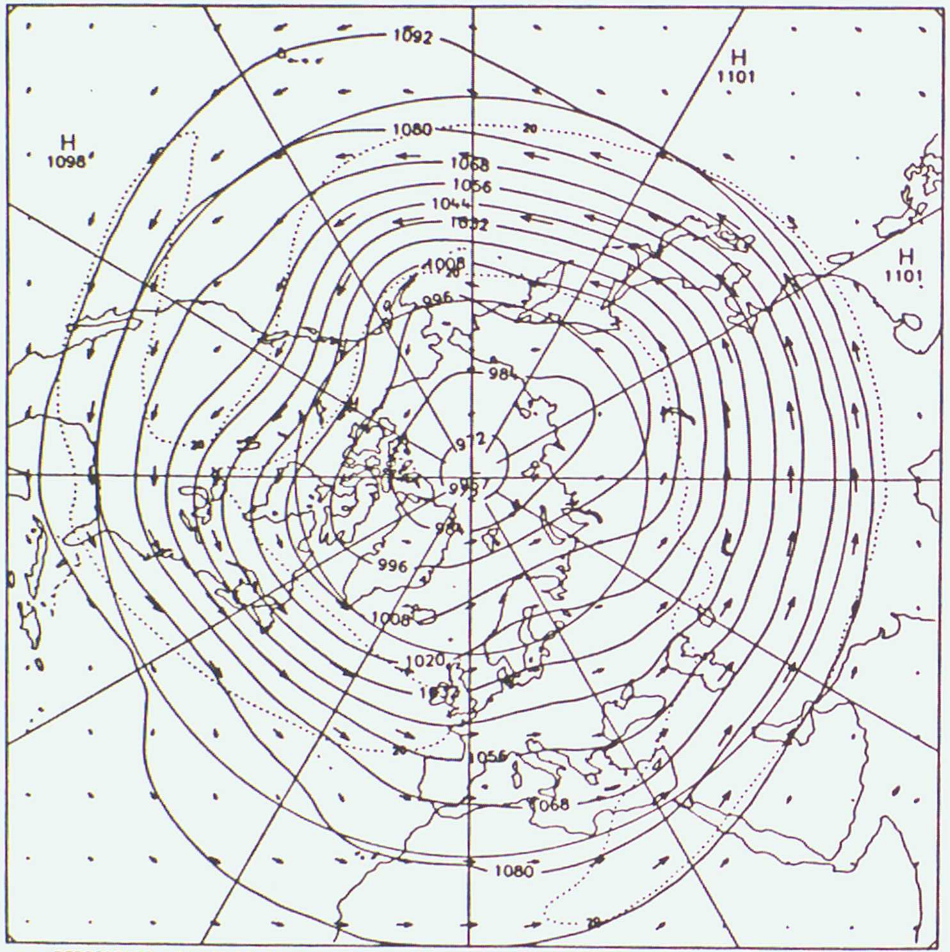
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 500 MB


576
564
552
540
528
516
504
492
487
L
489
10
20
H
588

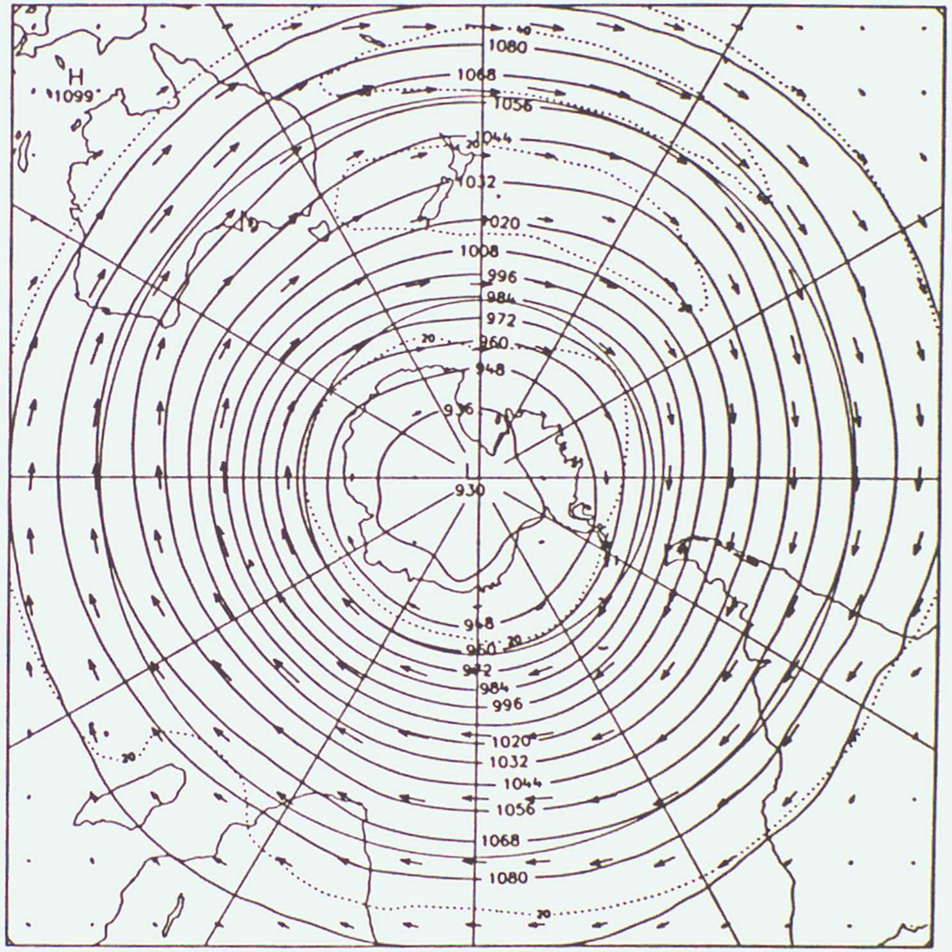
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 250 MB


1092
H
1101
H
1098
1080
20
1068
1056
1044
1032
1008
996
984
972
984
996
1008
1020
1032
1056
1068
1080
20
H
1101

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 250 MB


H
1099
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1080
1068
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1044
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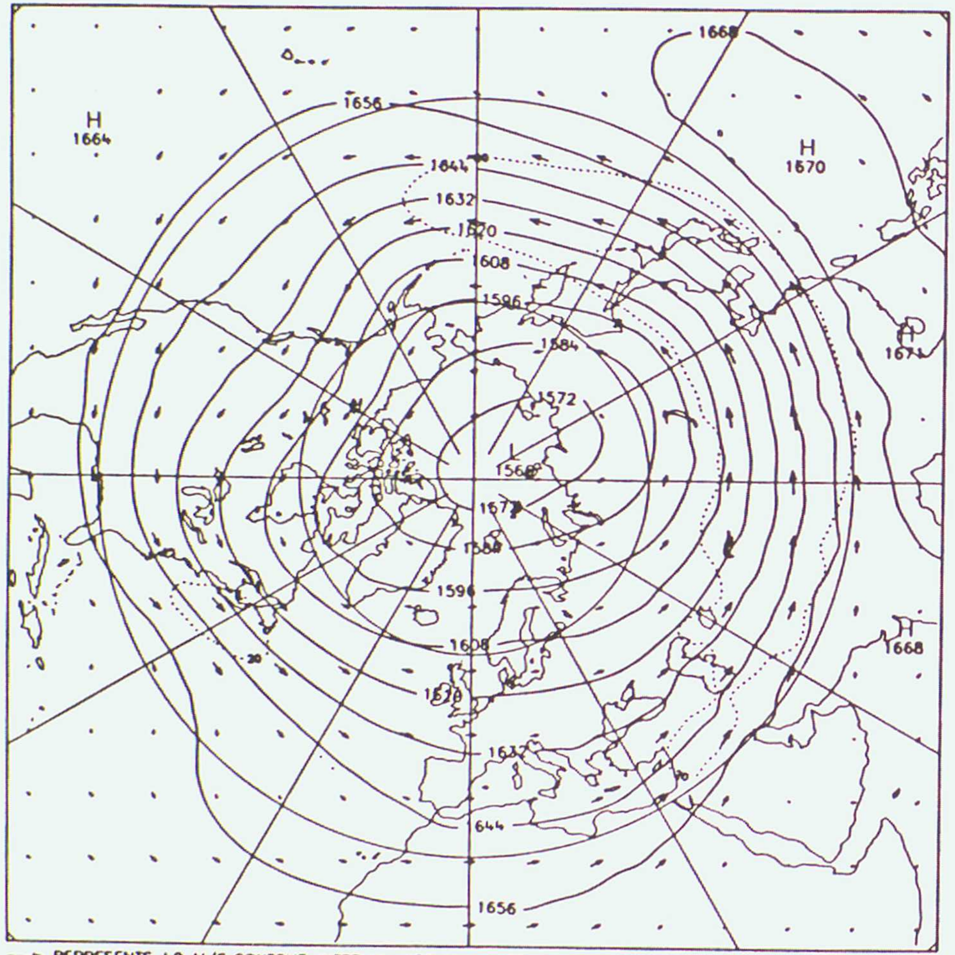
1020
1008
996
984
972
960
948
936
930
948
960
972
984
996
1020
1032
1044
1056
1068
1080
20

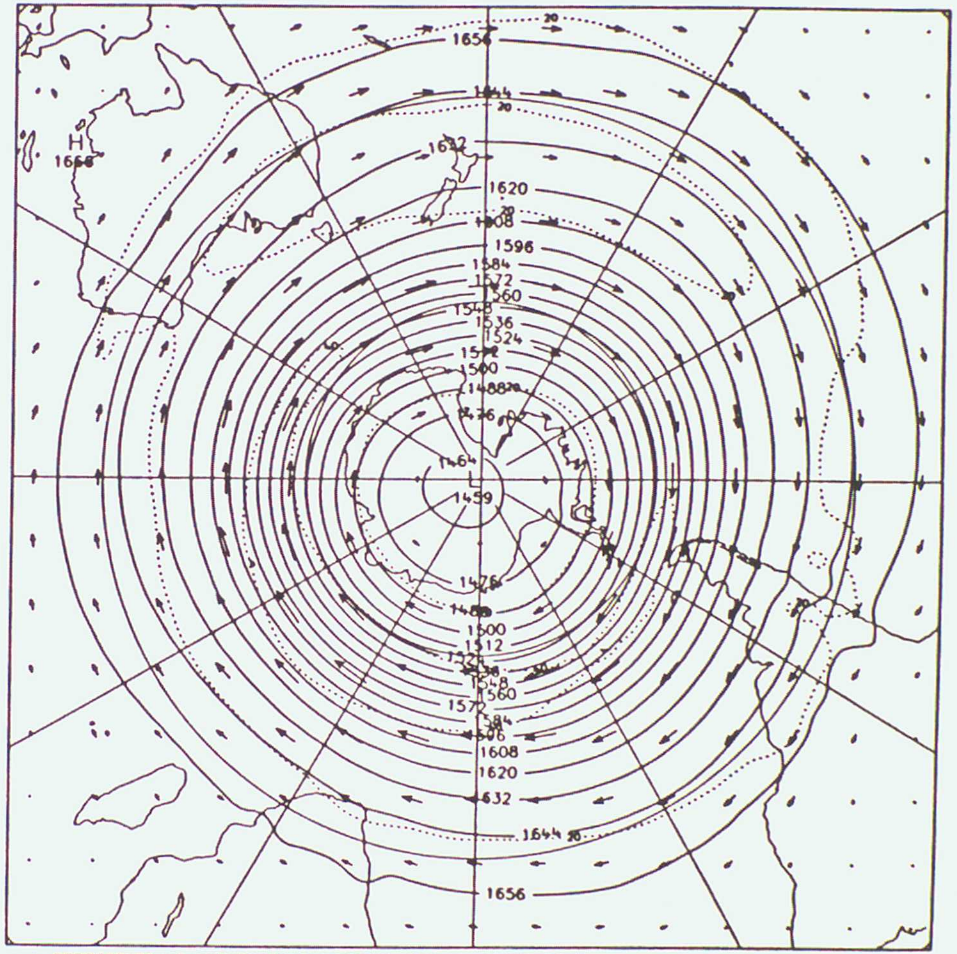
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT   0Z ON 1/9/1987 DAY 244   DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 100 MB


H
1664
1668
H
1670
H
1671
H
1668
1656
1644
1632
1620
1608
1596
1584
1572
L
1568
1572
1584
1596
1608
1620
1632
1644
1656
20

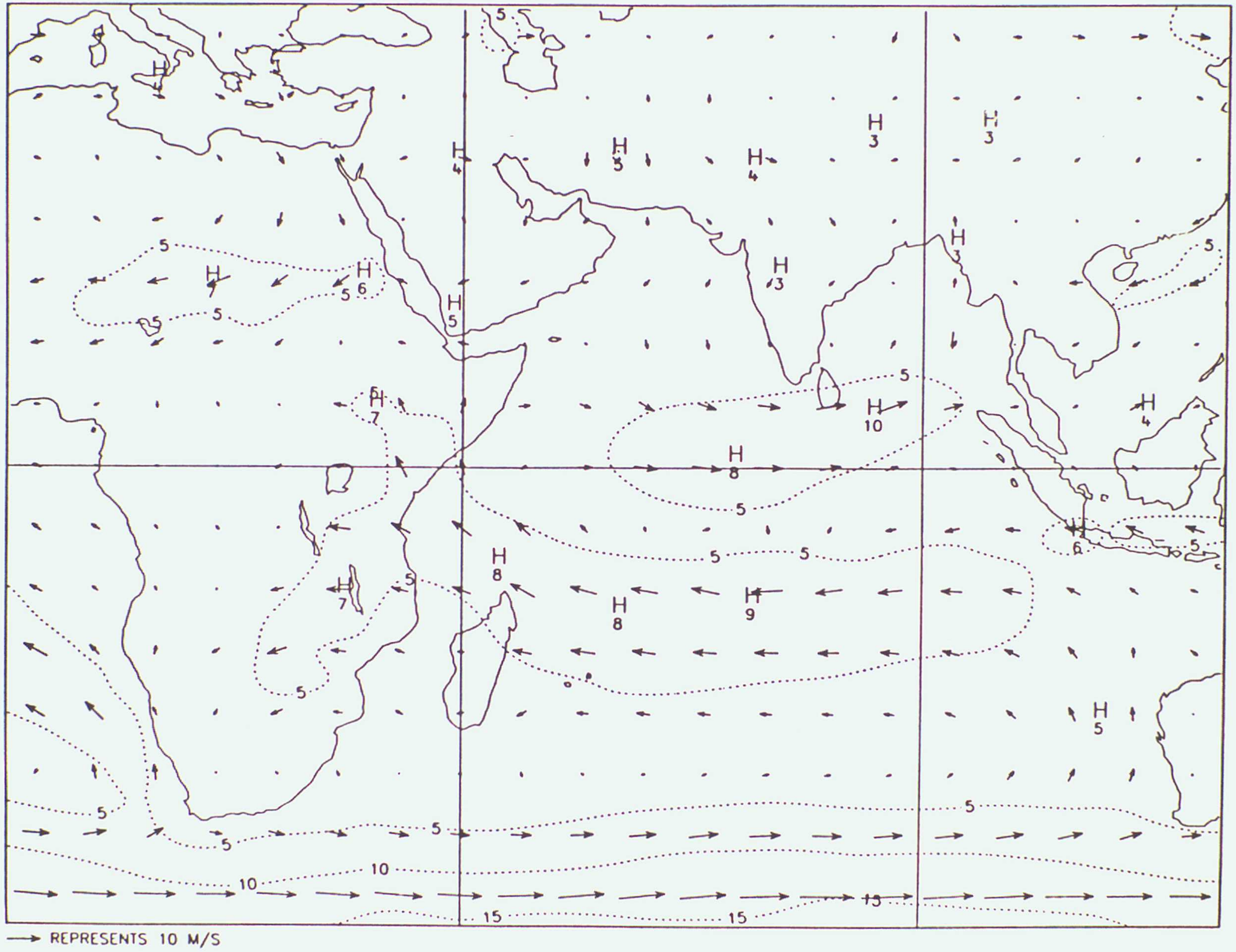
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1987
HEIGHTS, WIND ARROWS AND ISOTACHS.
VALID AT   0Z ON 1/9/1987 DAY 244   DATA TIME 12Z ON 30/11/1987 DAY 334
LEVEL: 100 MB

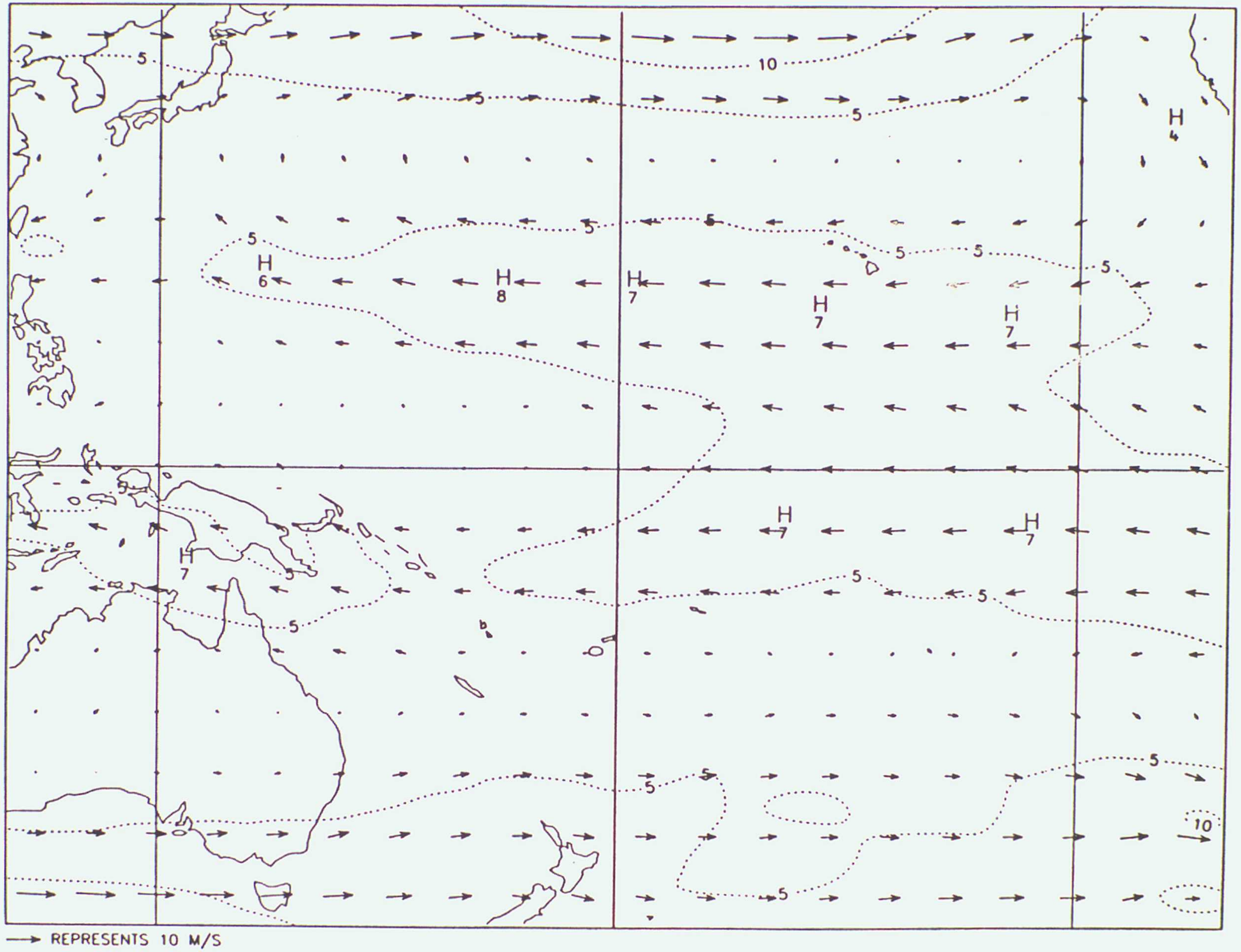

H
1668
20
1656
1644
1632
1620
1608
1596
1584
1572
1560
1548
1536
1524
1512
1500
1488
1476
1464
L
1459
1476
1488
1500
1512
1524
1536
1548
1560
1572
1584
1596
1608
1620
1632
1644
1656

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M   UNITS: 10 M

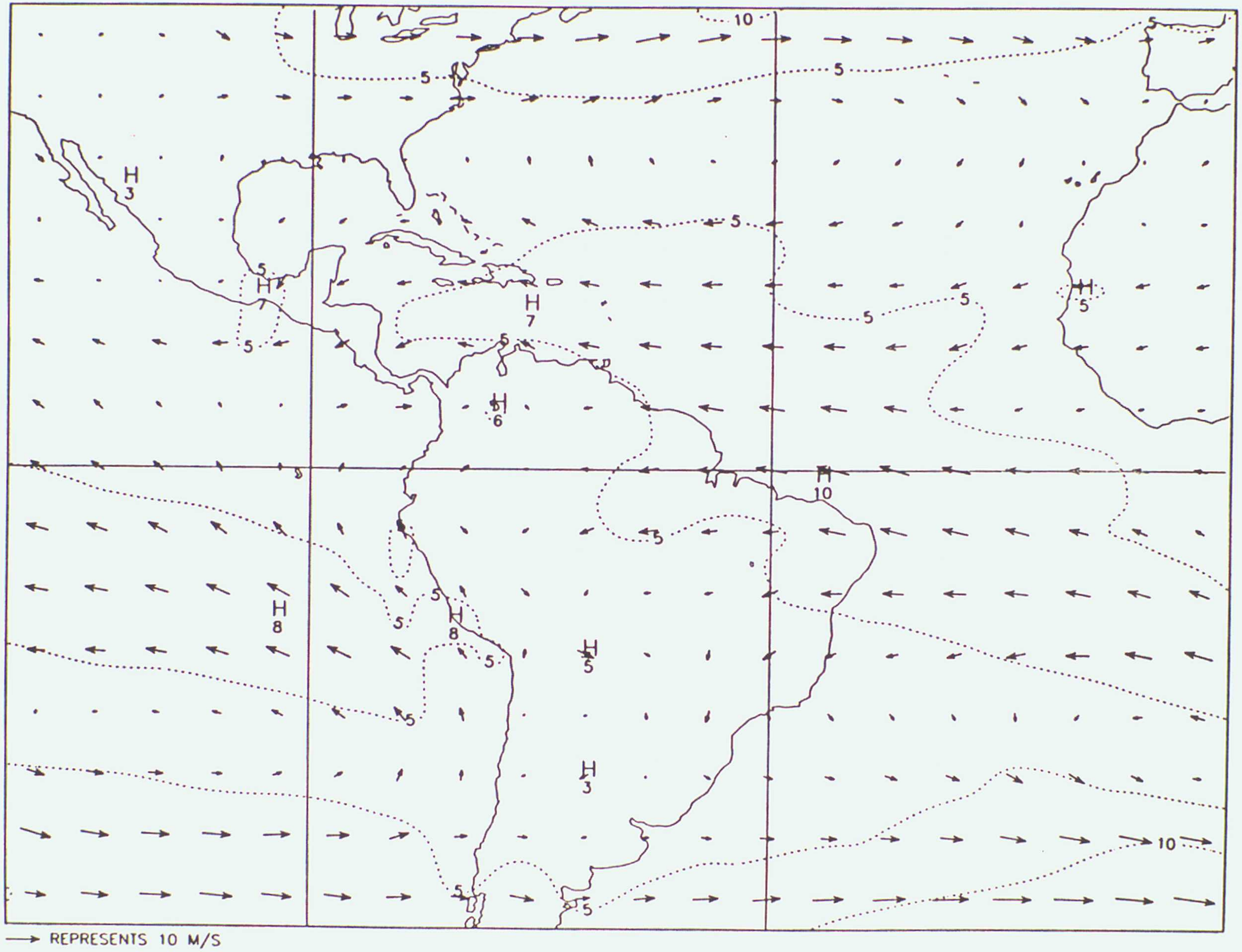
OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
850 MBS. BETWEEN LONGS. 0 E - 120 E


→ REPRESENTS 10 M/S
5
10
15
H

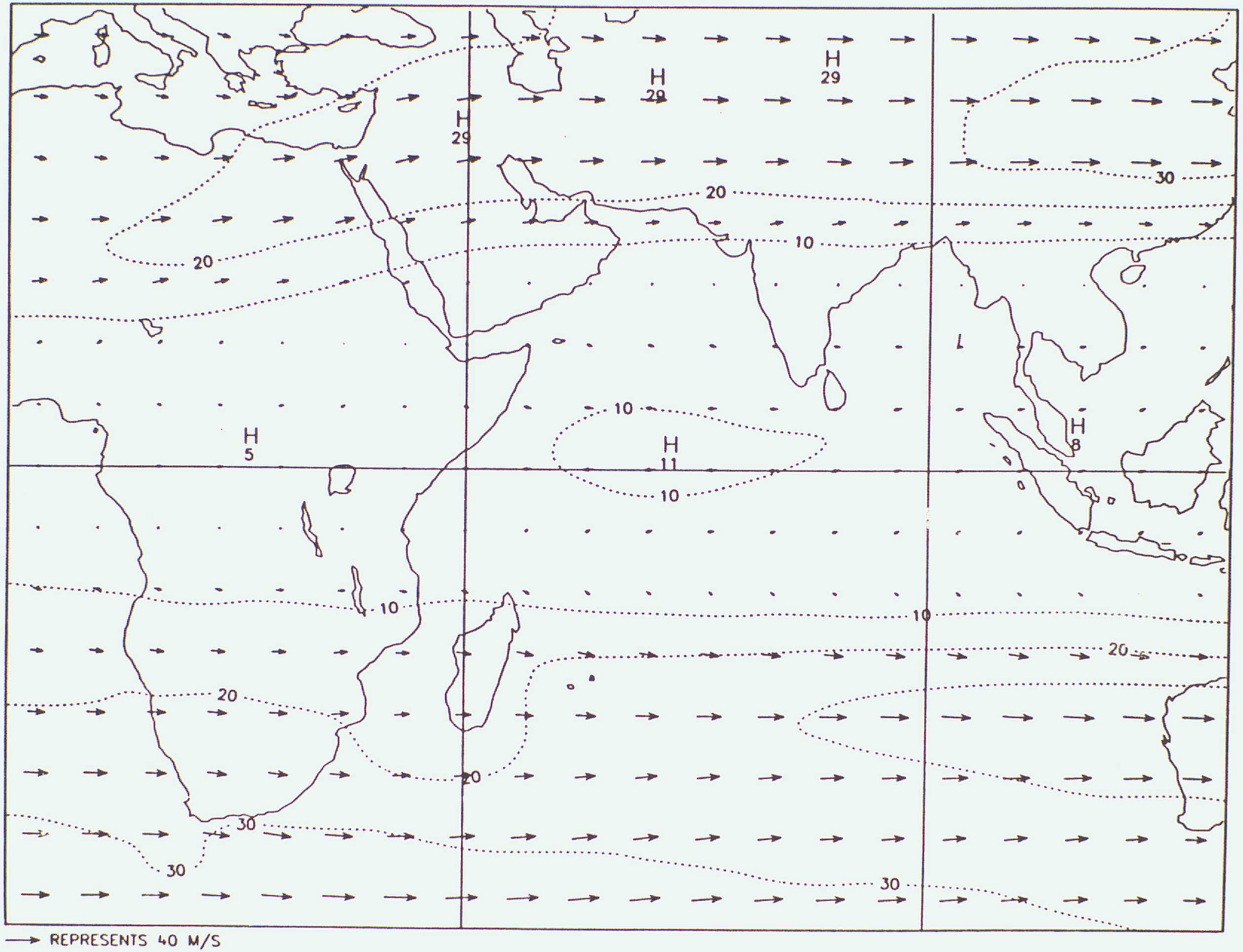
OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
850 MBS. BETWEEN LONGS. 120 E - 120 W


10
5
H
4
H
6
H
8
H
7
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
850 MBS. BETWEEN LONGS. 120 W - 0 W


H 3
H 7
H 7
H 6
H 5
H 10
H 8
H 8
H 5
H 3
5
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1987
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
250 MBS.   BETWEEN LONGS. 0 E - 120 E


H 29
H 29
H 29
30
20
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H 5
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H 11
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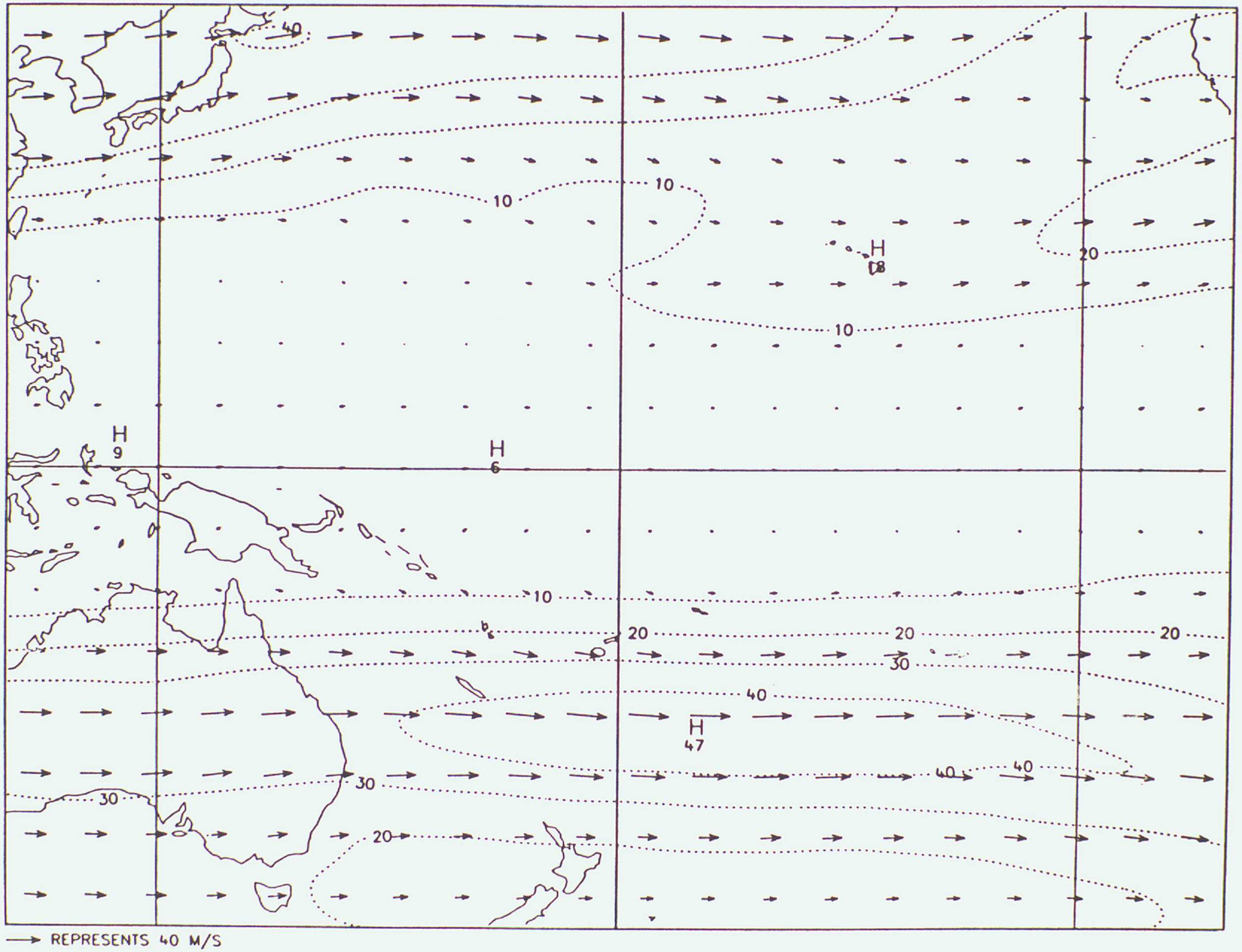
H 8
10
10
20
20
20
30
30
30
REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1987
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244 DATA TIME 12Z ON 30/11/1987 DAY 334
250 MBS.   BETWEEN LONGS. 120 E - 120 W


40
10
10
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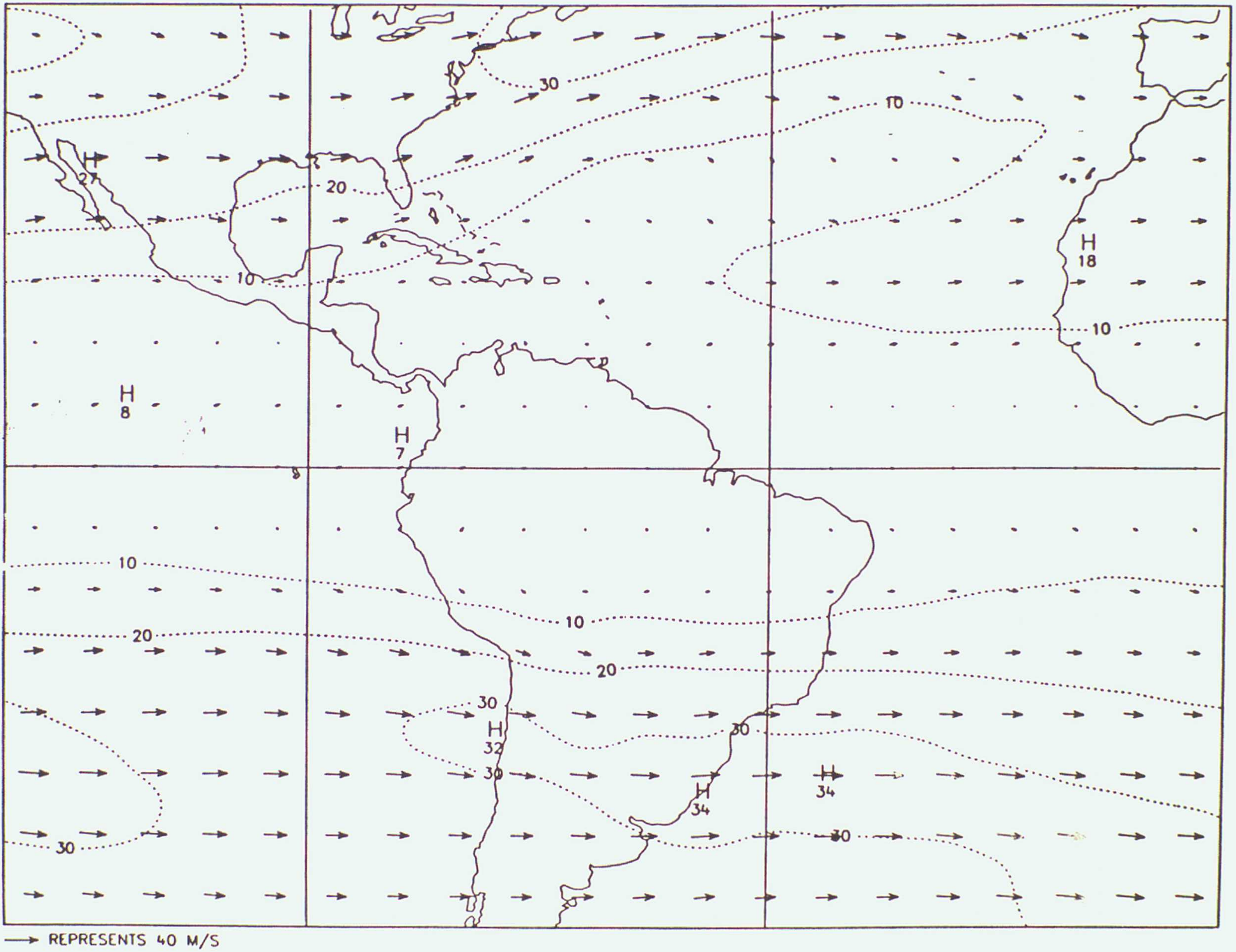
8
20
10
H
9
H
6
10
20
20
20
30
40
H
47
40
40
30
30
20
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1987
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
VALID AT 0Z ON 1/9/1987 DAY 244   DATA TIME 12Z ON 30/11/1987 DAY 334
250 MBS.   BETWEEN LONGS. 120 W - 0 W


30
10
H
27
20
10
H
18
10
H
8
H
7
10
10
20
20
30
H
32
30
30
H
34
H
34
30
30
→ REPRESENTS 40 M/S